



# A GARDEN CENTURY

1863-1963

THE CHRISTCHURCH BOTANIC GARDENS, now one hundred years old, were the first of their kind in New Zealand. Today they rank among the best in the world. Seventy-five acres of barren sand-hills have been transformed into a place of beauty containing the finest collection of exotic and indigenous plants in the Dominion. This book surveys the century of growth and describes the Gardens as they are today, helped by a selection of specially-taken photographs, many of them in colour. It is an invaluable guide for all those who visit the Gardens, an enduring souvenir for those who know them, and will bring pleasure to garden lovers everywhere.



# A GARDEN CENTURY



*The Christchurch  
Botanic Gardens*

**1863-1963**

CHRISTCHURCH CITY COUNCIL  
NEW ZEALAND



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# *Introduction*

by HIS WORSHIP THE MAYOR OF CHRISTCHURCH

MR GEORGE MANNING, C.M.G., M.A.

IN this garden city of Christchurch, a name of which the garden-loving citizens—and they are the very great majority—are proud, the Botanic Gardens play an important part and are a focal point for horticulture.

Through the foresight of the founders of Canterbury, coming as they did from Great Britain, with many centuries of horticulture in their blood, an area was set aside for the purpose of establishing a Public Garden, and the Botanic Gardens as we see them today were most assuredly envisaged by these founders. Those who followed them have carried on as they would have done for, no doubt, the love of gardening has also coursed through the veins of their descendants who have inspired others to continue this good work.

This book should have a special appeal to all those who are living or who have lived in Christchurch, and to those who have visited the city from other parts, enjoying and appreciating its wealth of home and factory gardens and, in particular, its Botanic Gardens.

The material includes the early history of the Gardens, and a description of them as they are today, it shows the knowledge, skill and administration of those who contributed to their development, and even includes a detailed reference to the birds of this area.

The citizens of Christchurch will, I feel sure, deeply appreciate the work of all those who have laboured with great diligence to produce this historic record.

I trust that this book will not only give much pleasure to many people, but also will place on record the horticultural growth of this city which is epitomised in its Botanic Gardens.







## *Preface*

BE it a solitary road-mender's hut with a few simple flowers growing by the door, or a great city with many acres judiciously laid out in shrubs and flowers, a garden is a sure way of measuring the strength of character of the people who live there.

One hundred years ago the hardships of life in a new land did not deter our forbears from beginning the Botanic Gardens. Today they are unsurpassed by those of any other city in the Southern Hemisphere and reflect great credit on the citizens of Christchurch.

This book records the development and early history of the Gardens in a manner of equal interest to layman and expert. I wish to pay tribute to my predecessors in office, to past directors, and to past gardeners and plantsmen for their service. Today we have a keen committee, an active, knowledgeable director, and an enthusiastic, hard-working staff, carrying on the good work.

To the public may I say this: The Botanic Gardens were created for your pleasure and relaxation—use them often, and protect them as your own, which in fact they are.

PETER SKELLERUP

*Chairman*

*Botanic Gardens, Parks and Reserves Committee*

## ACKNOWLEDGMENTS

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CREDITS: The colour photographs and most of the black-and-white illustrations were specially taken for this book by Robin Smith Photography. Other photographs were contributed by the following: Canterbury Museum, page 26 top; *Christchurch Star*, 27 top, 31 bottom, 40; Green & Hahn, 31 top, 38 top; F. C. Kinsky, 94; Peter J. Low, 95; Mannering & Donaldson, 32-3; *Press*, Christchurch, 25, 38. With some early views it has not been possible to trace the photographers.

MAP OF THE GARDENS

*inside back cover*





## CHAPTER ONE

# *The Gardens Today*

THE English settlers who arrived at Lyttelton in 1850 brought with them the gardening traditions of England. It is not surprising, therefore, that a mere thirteen years after the arrival of the Canterbury Pilgrims the first moves were made towards the formation of the present Botanic Gardens.

Although nothing much seems to have been done towards starting the Gardens before 1864, the planting of the Albert Edward oak on 9 July 1863 is accepted as their foundation date. While other trees such as eucalypti and willows (now removed) were planted before that time, the oak was the first recorded planting and marks the commencement of work in what was then the Government Domain.

Mainly encompassed on the north, west and south sides within a big horseshoe-shaped bend of the River Avon, the Gardens are ideally situated. The sandhills and stony soil which presented such an unprepossessing appearance to the pioneers have proved, in many respects, to be an advantage as the ground never becomes waterlogged. A generous climate with ample sunshine and an adequate rainfall has also been an important factor in making the Gardens what they are today.

The original soil was deposited in prehistoric times by the old Waimakariri river system, in its wanderings across the plains, and consists of a sandy silt: almost pure sand overlying beds of shingle. In some places the sand is eight to ten feet deep while in others the beds of shingle come almost to the surface. Although the soil appears to be of a rather poor type,

its nature has been an advantage for the incorporation of organic matter and stronger soil has allowed a wide variety of plants to be grown in it.

Plants from the northern temperate regions grow very well in this soil and climate, particularly the trees and shrubs. Most New Zealand plants, except a few subtropical species, succeed outside, as also do a surprising range of Australian and South African plants. Christchurch is fortunate with the range of plants which can be grown: while the winters are sufficiently cold to suit temperate plants which do not thrive in the north, there is sufficient sunshine to grow many which might be considered more suitable for warmer northern gardens.

In this seventy-five acres of garden is probably the finest collection of exotic and indigenous plants in New Zealand. Plants from most countries are represented, either outdoors or under glass. Alpine plants from the European Alps, the Himalayas and America flourish in the rock garden while nearby Australian gum trees tower upwards to the sky. In the bog garden are plants which range from the southern regions of Chile to the tropical isles of Hawaii.

Extensive glasshouses enable a large collection of tropical and warm temperate plants to be grown. In the Cuninghame House many tropical plants are displayed, including exotic orchids, flaming scarlet poinsettias, bougainvilleas and bromeliads, while even in these southern latitudes bananas are regularly ripened under glass. The Cactus and Succulent House is one of the finest of its kind in the world and its realistic diorama gives visitors the impression that they are standing in an African or American desert. The Townend House is always gay with flowering plants, and in the Fern House New Zealand ferns are displayed.

During the past hundred years a sandy waste, covered with sparse growth and surrounded by a sluggish stream choked with thick vegetation, has been transformed into a botanic garden which some consider is as beautiful as any in the world. The Gardens have an air of dignity and age which belies their relatively short existence; it is difficult to realize that no tree in the grounds is more than a century old.



## THE GARDENS TODAY

At any time of the year the Gardens are a favourite place with Christchurch residents and visitors, particularly in the spring when thousands of people go there during the weekends. During the middle of September the daffodils in the Woodland are at the height of their display and 'Daffodil Sunday' has become almost a tradition with the people of the city.

The use of the plural, 'Gardens', goes back to the early days of settlement when, in addition to the 'Government Domain' or 'Botanic Garden', the Domains Board also operated a garden for the establishment of economic plants and a nursery where trees and shrubs were grown for distribution throughout the country. These were collectively referred to as the 'Botanic Gardens' and although there is now only one garden the plural form has persisted so that today it is still called the Botanic Gardens, or simply 'the Gardens'.

## CHAPTER TWO

# *The First Hundred Years*

IN 1847 the Canterbury Association was formed in London, for the purpose of promoting and establishing a Church of England settlement in New Zealand. A scheme for such a settlement evolved by John Robert Godley, later known as the Founder of Canterbury, received the support of eminent members of the Anglican clergy and laity. The Archbishop of Canterbury headed the list of members and Lord Lyttelton, after whom the port of Lyttelton is named, was its chairman.

In 1848, the Home Secretary having granted the necessary charter, the details of the scheme were finalized and the following year Captain Joseph Thomas was sent to New Zealand to select a place for the settlement. After inspecting several districts he eventually chose a site on the plains near Banks Peninsula and his party proceeded to survey the area and to plan the city of a thousand acres where Christchurch now stands. Christchurch had been named after Godley's college, Christ Church College, Oxford, and the name Canterbury was a tribute to the Archbishop.

When the first four immigrant ships arrived at Lyttelton (then Port Cooper) in December 1850 the settlers, later known as the 'Canterbury Pilgrims', found the site of Christchurch methodically pegged out with parallel streets, squares and open spaces. A 'green belt' of some five hundred acres (later disposed of) was provided round the outer boundaries of the city where the four 'main belts' now are.

As the city developed adjustments were made to the original plan. Most important of these was the setting aside as a public

reserve of approximately five hundred acres on the west of the city between what are now Bealey and Moorhouse avenues. This was named Hagley Park after Lord Lyttelton's country seat in Staffordshire.

Why Godley and the Provincial Council secured this land as a public reserve is not certain. Popular legend maintains that the brothers William and John Deans, who had settled at Riccarton in 1843 and who held a freehold farm of four hundred acres and a lease of three thousand acres from the local Maoris, suggested the plan to the Council to prevent the settlement extending westwards and encroaching on their farmlands. The grandsons of John Deans state, however, that the family records, which were carefully kept and preserved, make no mention of any such suggestion by either of the brothers. Whatever the reason, Hagley Park has been and will for ever be a great boon to the citizens of Christchurch. It is the main central park of the city and provides both active and restful recreation for thousands of people of all ages. It is what Hyde Park is to London.

The Canterbury Association ordinance of 1855 declared that Hagley Park was to be 'open for the recreation and enjoyment of the public' and also that the Superintendent of the Province had the power 'to let the same on lease, to put roads through it, to make plantations and gardens, &c.'

When it was first declared a public reserve Hagley Park was described as 'unprepossessing' in appearance. Although there were extensive areas of good soil, especially in the southern portion now known as South Park, much of the northern half and what is now the Botanic Gardens consisted of low sandhills, extensive shingle-beds and some swampy areas.

The native vegetation, while of interest to botanists, had little appeal to the settlers. It was mainly of a herbaceous character and consisted of tussock (*Poa caespitosa*), the toe toe (*Arundo conspicua*), the spear grass or spaniard (*Aciphylla squarrosa*), various species of grasses, hard fern, some composites, a few terrestrial orchids and representatives of other genera. Along the margins of the river and in the swamps there were, of course, the ubiquitous flax (*Phormium tenax*)

and some sedges, such as the niggerhead, *Carex secta* and other species of *Carex*. J. B. Armstrong, who made a full collection of the indigenous flora of the park, listed eighty-two species of herbaceous plants and only six shrubs, these being the manuka (*Leptospermum scoparium*), tutu (*Coriaria sarmentosa*), koro-miko (*Hebe salicifolia*), matagouri (*Discaria toumatou*), *Coprosma robusta* and *Olearia virgata*. Of trees there was none.

Little of the original flora remains. Clearing, cultivation, grazing and the establishment of sports-fields account for its disappearance; European grasses now predominate and the groups and avenues of trees that have been planted over the years today present a scene not unlike that of a spacious English park.

The original public reserve was estimated at approximately five hundred acres, but the Public Domains Act, 1895, describes the area of Hagley Park and the Domain (Botanic Gardens) as 495 acres. This included the ten acres vested in the Christ's College authorities in lieu of a similar area first allotted to them in Cathedral Square; also some thirteen acres for a public hospital and the areas taken for roads through the park.

Although there has not been a complete survey of Hagley Park and the Botanic Gardens since 1906 the following figures show the approximate areas of the various divisions of the original reserve: Little Hagley Park and North Park, 219 acres; South Park, 174 acres; Botanic Gardens, 51 acres; Christ's College, 10 acres; Museum, 1 acre; Hospital, 16 acres; Geophysical Observatory, 2 roods. Approximately 24 acres of North Hagley Park have since been added to the area of the Botanic Gardens.

In the early days much of the park land was used for the pasturing of cattle, but as planting and development increased the livestock was ordered to be removed. This did not meet with the approval of all citizens; some complained that the price of milk was already high and the removal order would increase the price. The grazing of stock did not cease entirely. Until sixteen years ago, on all but enclosed areas, sheep were



pastured on both North and South Parks during the summer months.

As a means of clearing the reserve and sowing it down in permanent pasture, much of the better-class land was let for cropping. For instance, the southern portion, now South Park, was ploughed up and after an initial crop of oats (which averaged 120 bushels to the acre), was sown down in English grasses and a lease granted at an annual rental of 2s 7d per acre. As more land was required for the planting of trees and to provide grounds for sport and recreation the leases were curtailed. Today the only leaseholds are those held by sports clubs.

In 1897, to commemorate the Diamond Jubilee of Queen Victoria's reign, the piece of swamp land near the Armagh Street entrance to North Park was formed into a lake, approximately five acres in area and three feet deep, which was named Victoria Lake after the Queen. For many years Victoria Lake has been used by the Christchurch Model Yacht Club. It is also kept stocked with trout by the Acclimatisation Society which for a small annual fee issues licences to children wishing to learn the art of angling.

The need for trees to provide shade and shelter and to beautify the landscape was soon realized. From the 1860s onwards such organizations as the Acclimatisation Society and the Domains Board carried out extensive planting. It is recorded that the first trees planted were groups of pines (*Pinus radiata* and *P. pinaster*) near the north-east corner of the park and in the vicinity of Victoria Lake.

Wishing to reproduce the scenes of their homeland, the settlers concentrated on those trees with which they had been familiar in Britain and because of this today there are fine avenues of beech, elms, planes, horse-chestnuts, sycamores and limes, as well as groups of ash trees, oaks, hornbeam, silver birch, willows and poplars.

In 1850 settlers' huts were erected in North Park just north of where the United Bowling and Tennis Club's pavilion now stands. For many years it was referred to as Settlers' Corner. A stone tablet marks the site of the Pilgrims' Well, then a

natural spring. In 1852 the first cricket match (between the single and married men of the settlement) was played. In the same year the *Lyttelton Times* advertised that a race meeting would be held in Hagley Park on Easter Monday and remarked that the course had been much improved since the last races were held. The first flower show, from which the Canterbury Horticultural Society may be said to have originated, was also held in 1852. In 1882 the Industrial Exhibition was held in South Park. The large iron entrance-gates were presented by the promoters to the Domains Board and were re-erected where they now stand at the Hereford Street entrance to the Gardens. In 1905-6 the large International Exhibition was held in North Park and in 1910, at the time of Lord Kitchener's visit to New Zealand, a camp of volunteer corps was held there. These are but a few of the purposes for which the park has been used during the years.

The cricket clubs were the first of the sport bodies to use the park and South Park has been the scene of their activities since 1867. Later on, also in South Park, a polo ground was established and was used until the outbreak of World War II. The old polo ground has since been graded, drained and re-sown to provide cricket pitches and hockey grounds.

Today Hagley Park provides the following sports fields: 32 football fields (all codes), 24 hockey grounds, 44 basketball courts, 41 cricket grounds, 16 baseball grounds, 4 bowling greens, 28 grass tennis courts, 5 hard tennis courts, 6 croquet greens, 12-hole golf course, 2-mile horse ride, 5-acre lake for model yachting; also boating on the Avon which surrounds the Botanic Gardens.

The citizens of Christchurch are proud of their park and strenuously oppose any attempt to make use of it for any purpose other than that for which it was intended—'for the recreation and enjoyment of the people'.

During the first years of settlement the Canterbury colonists could spare little time on the proper development of Hagley Park. The Provincial Council was concerned with varied activities over the whole of Canterbury (and what is now

Westland) and the settlers were busy establishing homes and farms and businesses.

At that time the administration of all public reserves was in the hands of the Lands Office. In 1855 the Superintendent was given power to set aside land for plantations and gardens, but little progress was made in this direction until 1864.

On 10 May 1864 a public meeting was held in the 'Town Hall' for the purpose of forming the Canterbury Horticultural and Acclimatisation Society. The meeting decided that Hagley Park was a suitable place in which to establish a botanic garden. The Provincial Government was approached and a Commission consisting of Messrs Hall, Sewell, Miles and Hill was appointed by the Superintendent 'to promote the cultivation and planting of the Government Domain in connection with the objects of the Acclimatisation Society'.

For some years there was a close relationship between the Commission and the Society, both having similar objects: the introduction and acclimatisation of plants likely to be of benefit to the colony and the establishment of a botanic garden.

At the first meeting of the Commission it was unanimously agreed that 'an area suitable for acclimatisation and horticultural purposes be trenched and planted without delay'. A vote of £1,000 was made by the Provincial Government. The Provincial Secretary was requested to have all cattle removed from the land. The Government Gardener, Mr E. Barker, undertook the supervision of the work for the Commission. The area selected as a beginning was that portion of the Botanic Gardens now known as the Armstrong Lawn.

At first the Commission acted as an advisory committee to the Superintendent of the Province. It continued to function until 1872 when, by the Canterbury Domains Act, 16 January 1872, under the hand of William Rolleston, Superintendent of Canterbury, the first Christchurch Domains Board was established. The first members appointed to the Board were: W. G. Britton (chairman), The Secretary for Public Works (secretary), J. Gould, Robert Wilkin, J. R. Hill, C. C. Bowen, E. Jollie and T. H. Potts. These names are closely linked with the early history of Christchurch and Canterbury.



The Board, assisted by the Acclimatisation Society, continued to work with the Canterbury Provincial Council until 1876 when provincial government was abolished. With the change all grants to the Domain were withdrawn and the Board's activities were greatly reduced. Apart from the modest sums received from rents and grazing fees, it could obtain no financial assistance until some years later when the Government made a grant of £3,000 in payment for the thousands of trees and plants that had been raised in the Domain and planted throughout the province. Between the years 1870-82 a total of 763,034 trees, at an estimated value of £4,500, were distributed to public bodies in Canterbury.

These were the years of the 'hungry eighties' and the Board had great difficulty in finding sufficient revenue. Little skilled assistance was available; on several occasions the only workers the head gardener appears to have had were men supplied by the Charitable Aid Board, and many of these were too infirm for any but light work.

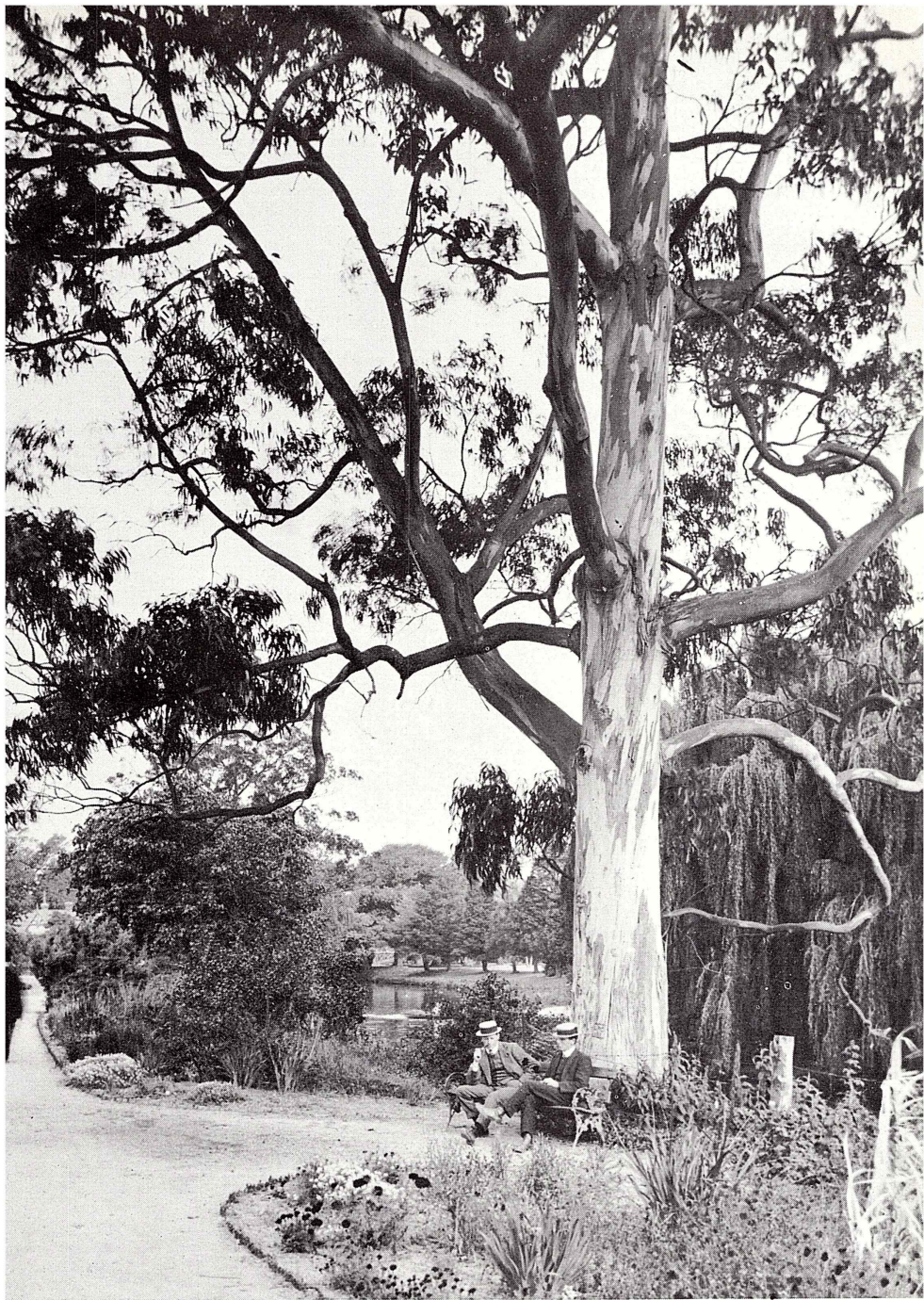
The minutes of 1880 show that efforts were made to establish 'economic plants', amongst which were the olive, mulberry, tobacco, arrowroot, osier willow and sugar maple. In 1882 an economic plant nursery was established in South Park near Moorhouse Avenue. At the request of the Pharmaceutical Society it was also decided to grow medicinal plants. In 1886 these schemes were abandoned owing to the lack of skilled labour and finance.

In 1898 the Board's total income for the year was £548; against this small amount, wages alone amounted to £573. In 1889 the Board's secretary had to ask clubs and lessees for monies due in order to pay wages and expenses. Repeated letters had to be sent in some cases explaining the financial difficulties.

In 1877 prison labour was used in the Domain and in 1882 prisoners worked to break in the nursery being established for the purpose of growing economic plants.

The Board's income was also supplemented by grazing fees and revenue from sales of hay, firewood and shingle. As another means of augmenting funds, garden fêtes were held



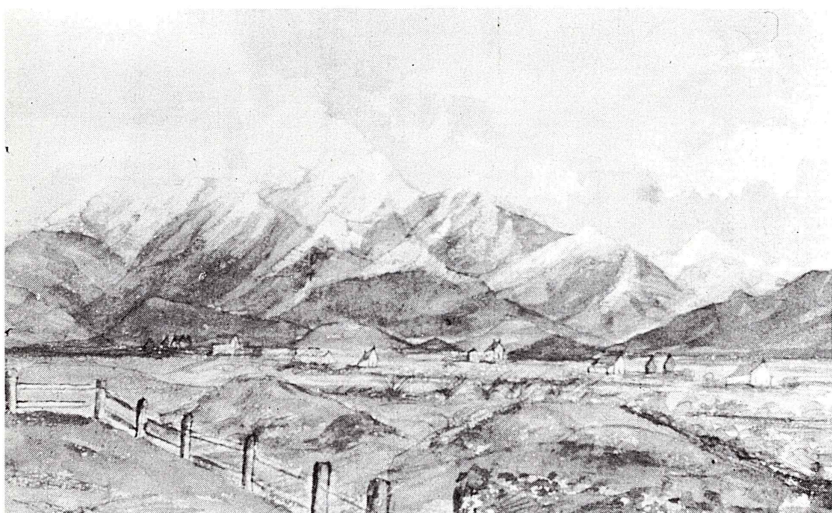


A scene in the Gardens about the turn of the century. The Hospital grounds lie across the river, to the right.





The settlers' V-huts in Hagley Park near the present playground, photographed by Dr Barker in the 1850s.



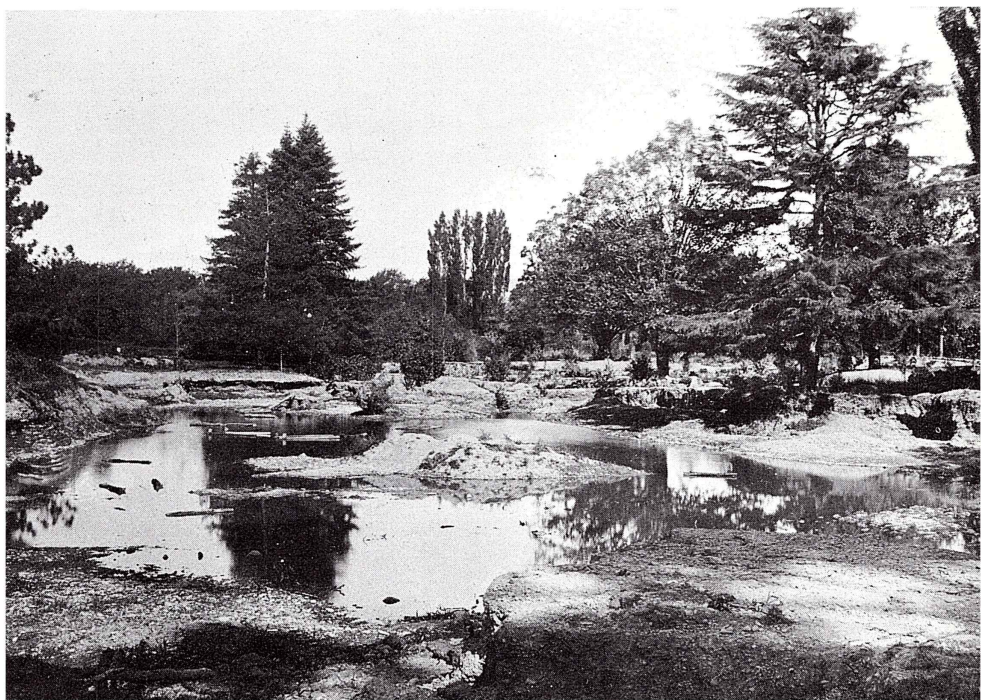
This watercolour by E. J. Harper is entitled 'Christchurch Domain and Gardens, 1857'. The artist has foreshortened the view of the distant Alps.

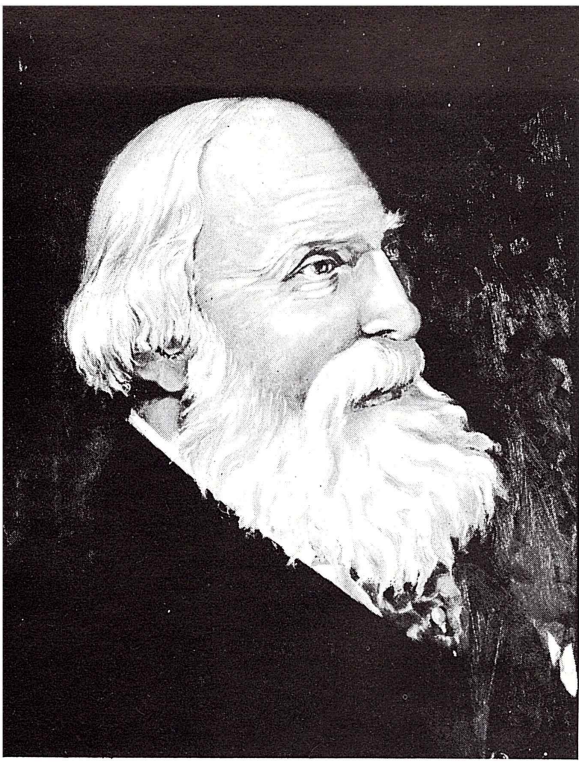




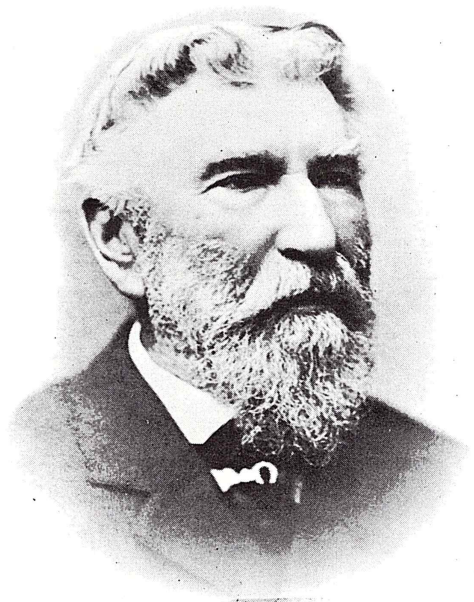
A photograph, probably taken in the 'seventies, looking upstream to the old bridge across the Avon. On the left is now the Woodland.

One of the old shingle pits which was transformed into the Bog Garden in 1920, a view looking south towards the site of the present New Zealand section.



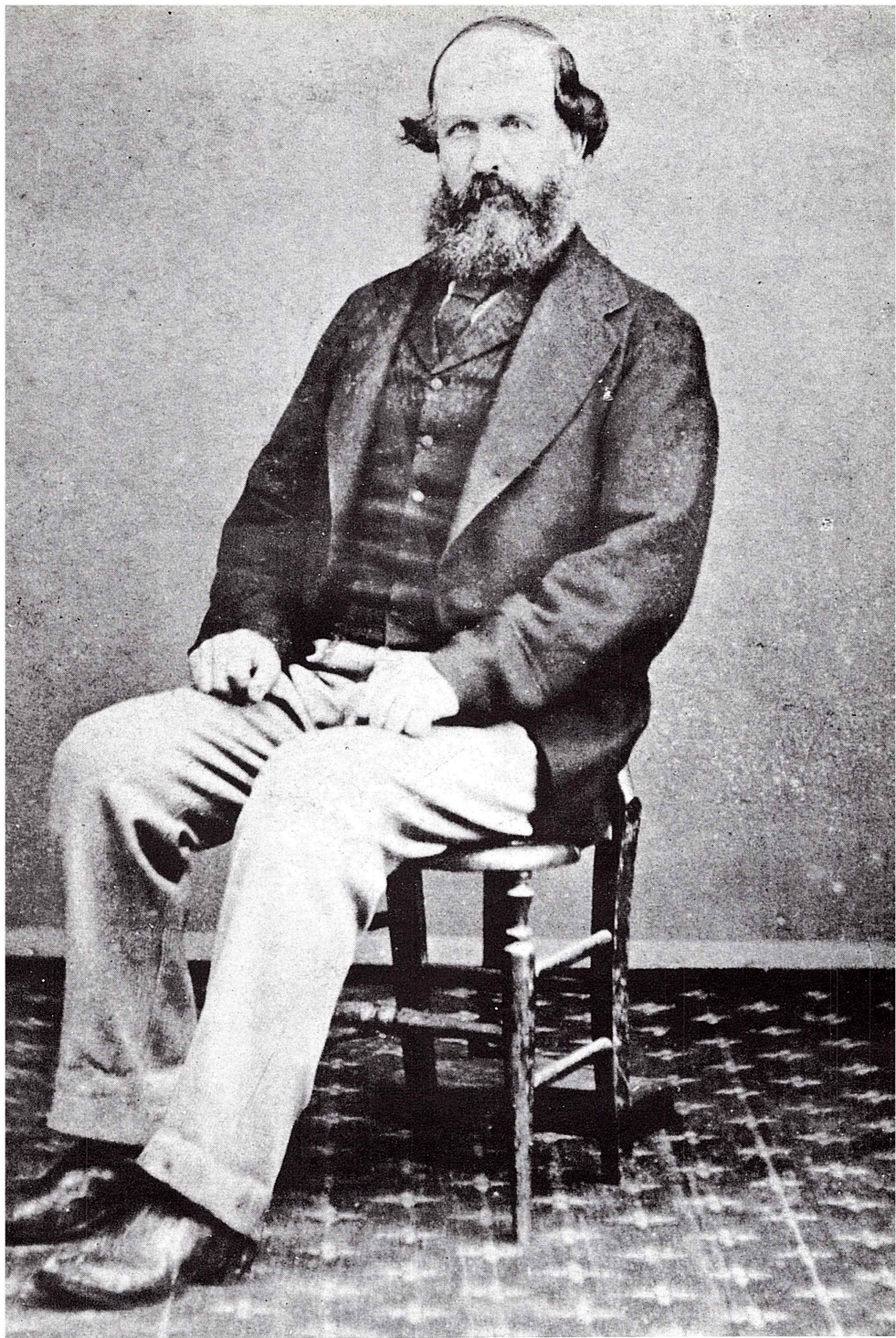


J. F. Armstrong,  
Curator 1867-89.



A. L. Taylor,  
Curator 1889-1907.



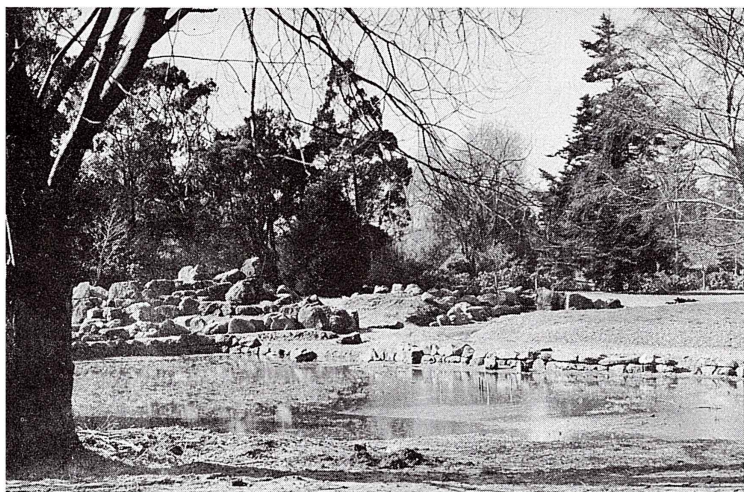


Enoch Barker, first Government Gardener, 1860-7.  
From 1864 he was in charge of the Botanic Gardens.



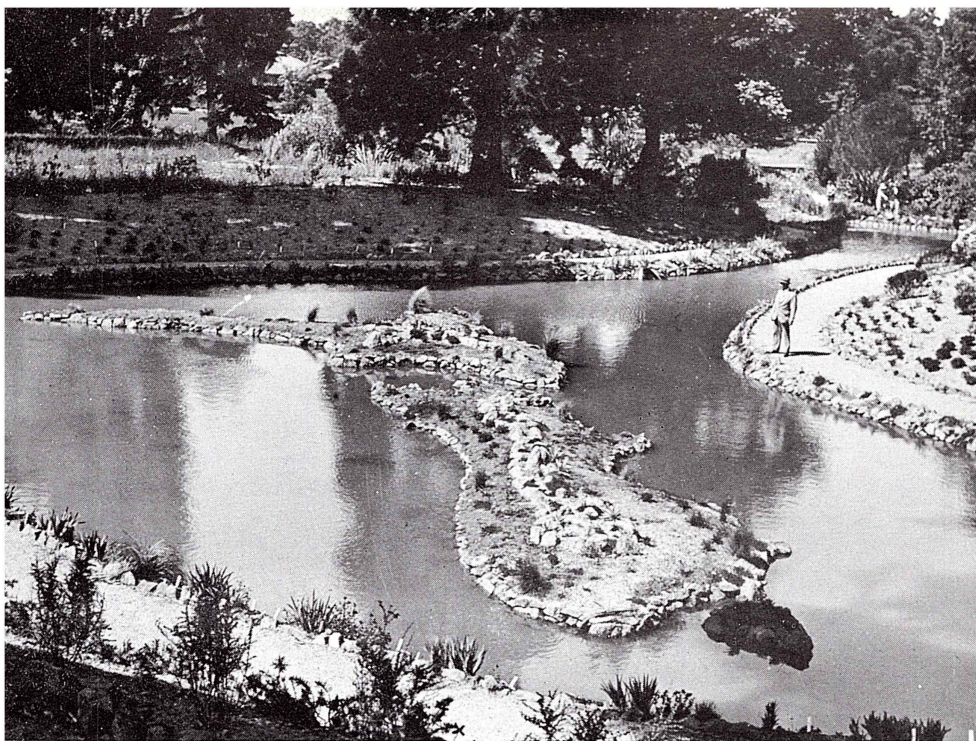


A fête in the Gardens near the present tea kiosk. These functions were held annually between 1914-30 as a means of raising funds.



The Rock Garden during construction in 1939.





This map of New Zealand in the western part of the Bog Garden was a popular feature in the 1920s.



A cedar of Lebanon (*Cedrus libani*) on the Armstrong Lawn, one of several valuable trees damaged in the heavy snowfall of July 1945.







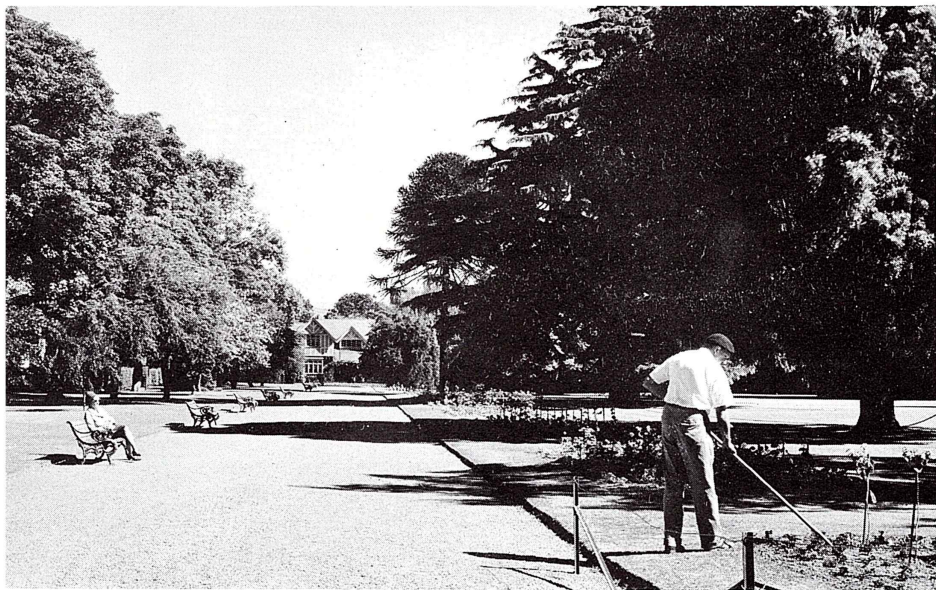


This airview of central Christchurch shows how the Botanic Gardens and Hagley Park provide the city with a 'green heart'.





The Rolleston Avenue walk, beside the Armstrong Lawn, looking towards the Director's former residence some fifty years ago.



The same view today.





At the south-western corner of the Gardens, near Riccarton Avenue: the scene today (*above*) . . .

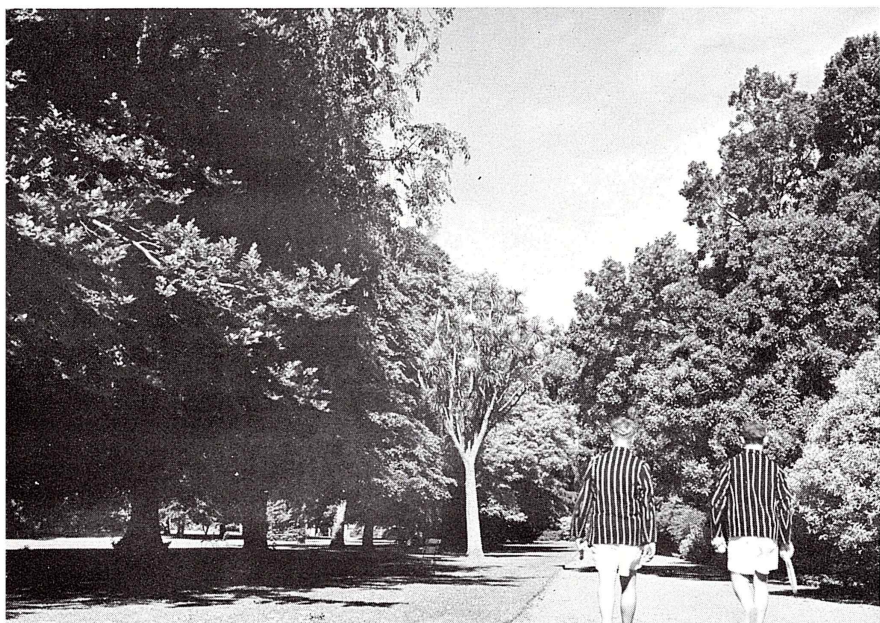


. . . and in the early 1900s.





Two views of the walk on the south side of the Archery Lawn looking towards the Pine Mound: about fifty years ago (*above*), and today.





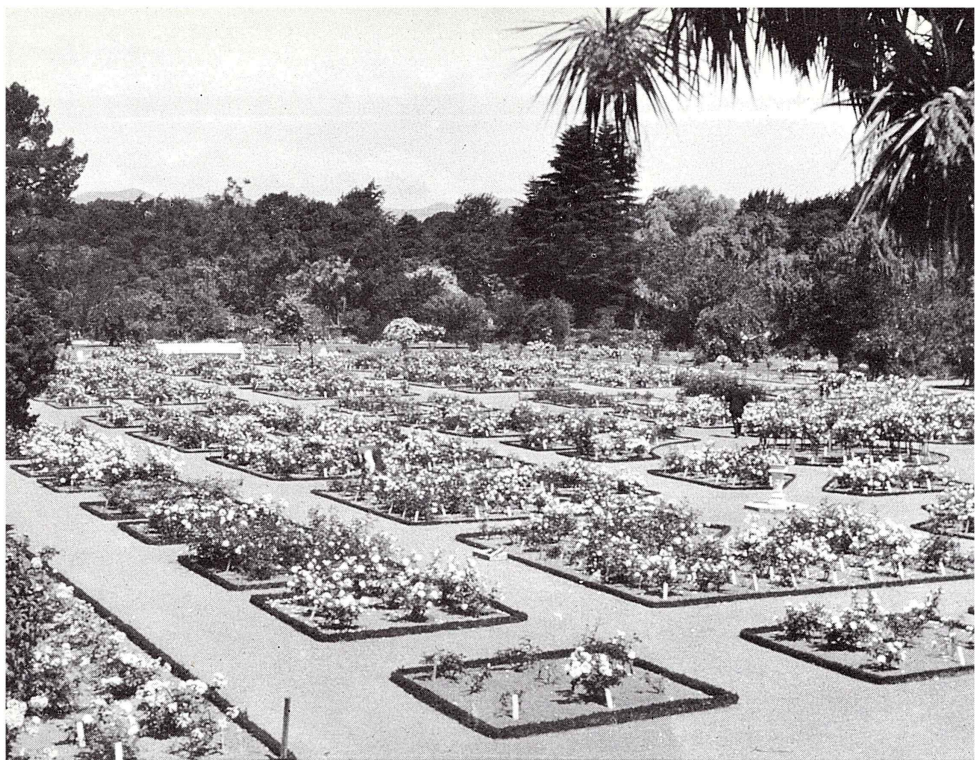


Sunday afternoon on the Archery Lawn in the early years of the century, a view towards the Canterbury Museum.



Green lawns and sunshine are still a good recipe for relaxation.





The Rose Garden established by James Young was considered the largest in Australasia in the 1930s.

The Rose Garden after reconstruction in 1935.





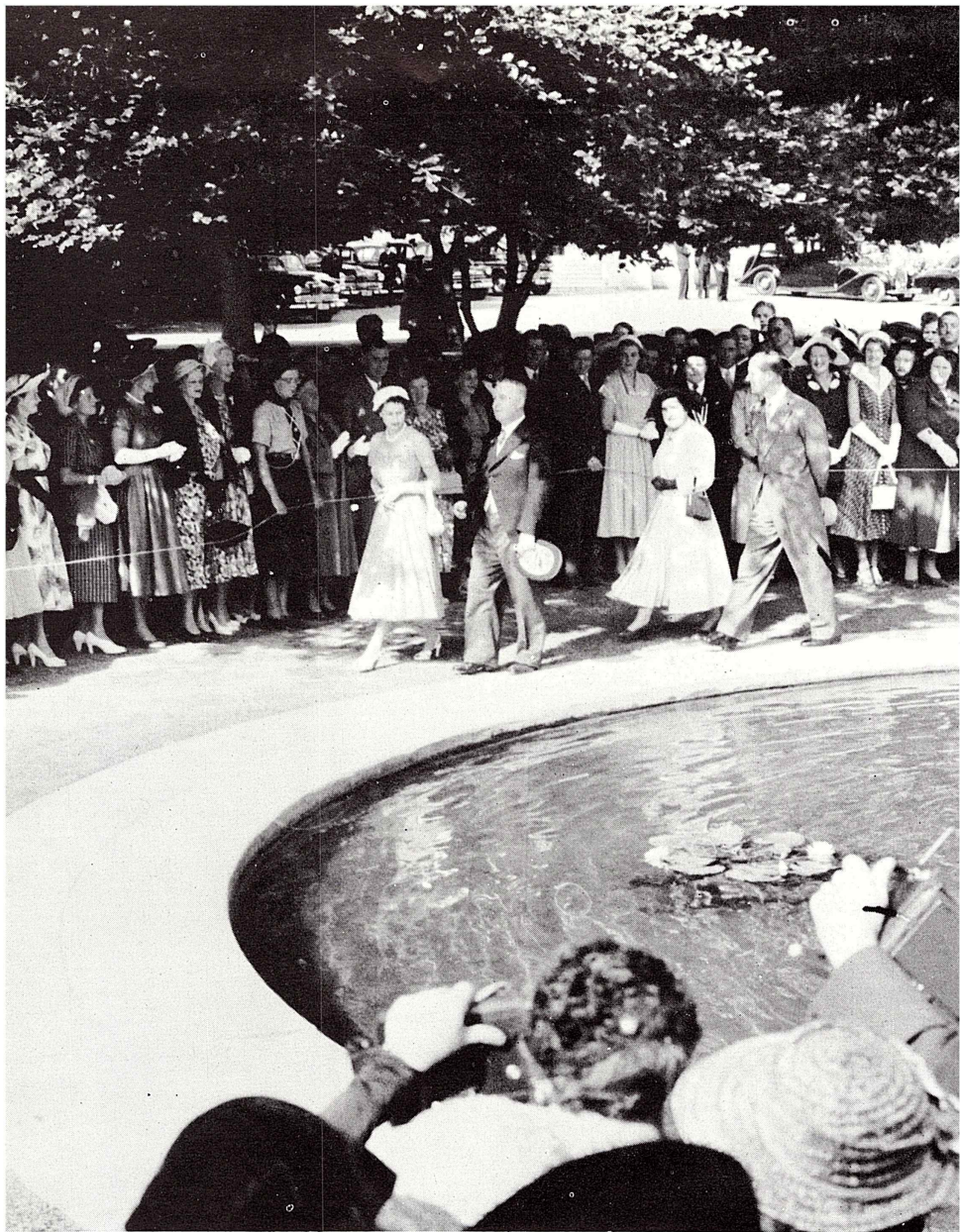


In the Rose Garden today.



Members of the Canterbury Horticultural Society watch a rose pruning demonstration in the late 1930s. These demonstrations are still an annual function.





At the Royal Garden Party during the visit to Christchurch of Queen Elizabeth II and the Duke of Edinburgh in January 1953.



in the Botanic Gardens nearly every year between 1914 and 1930.

Although always short of money, by devoted service, careful administration and with the help of donations from public-spirited citizens, the Board continued in the development of both the Botanic Gardens and Hagley Park.

As Christchurch grew in size and population it was realized by some members of the Board that development could not keep pace with the city's needs on such a limited income. Prominent among those urging a change were Mr M. E. Lyons, for many years a City Councillor and one of the council's representatives on the Board, and Mr George Skellerup, who was a Crown representative. The boroughs of New Brighton and Sumner, as well as large areas of the Waimairi and Heathcote counties, had amalgamated with the city, which now had to meet their former contributions to the Board's funds. Some local authorities claimed that they had their own domains and parks to develop and wished to be relieved of their responsibilities to the Board.

In 1946 an Act to dissolve the Christchurch Domains Board was passed by Parliament, and Hagley Park and the Botanic Gardens were placed under the control of the Christchurch City Council.

Although at the time there was some opposition to the change, it is now generally conceded to have been a wise move. Instead of depending on a fixed grant which could be altered only by an amendment to the Act, the City Council has been able to provide the finance considered necessary for the proper maintenance and development of the Botanic Gardens and Hagley Park.

The North Canterbury Acclimatisation Society was formed in February 1864, the first patron being the Superintendent of Canterbury, Thomas Bealey. The Society at once began, and continued for a number of years, to obtain seeds and plants from various countries throughout the world. Dr Haast, afterwards Sir Julius von Haast, corresponded with the Director of the Royal Botanic Gardens, Kew, who forwarded various kinds

of seeds from these famous gardens. All the plants obtained from various sources were not suitable for the climate and soil of Canterbury, but the society was responsible for the introduction of many plants, trees and shrubs now common throughout the country.

Amongst the seeds and plants contributed by the Society are the following, recorded in 1865 with the names of the donors: 'The Governor, Sir George Grey, one hundred young oak trees. Mr J. Hadens, pine tree seeds. Mr W. Hislop, plants of *Araucaria excelsa*, *Cunninghamia lanceolata*, *Cupressus* (*Chamaecyparis*) *lawsoniana*, *C. goveniana* and *C. macrocarpa*; *Pinus insignis* (*radiata*) and *P. pinea*, *Taxodium* (*Sequoia*) *sempervirens*; *Taxus fastigata* and its variety 'Variegata'; *Cedrus deodara*; *Wellingtonia* (*Sequoiadendron giganteum*); the scarlet horse-chestnut (*Aesculus carnea*) the double white peach; the double flowering-cherry (*Prunus avium* fl.pl.); the copper beech; the scarlet thorn; the golden and silver-edged hollies; the loquat; the whitebeam (*Sorbus aria*); the Guelder rose (*Viburnum opulus* var. *roseum*); peppermint gums (*Eucalyptus amygdalina*) and others; *Correa alba*; *Buddleia salviifolia*; *Forsythia suspensa*, and *F. viridissima*; *Photinia serratifolia*; rhododendrons; the arbor vitae (*Thuya occidentalis* or *T. orientalis*) and *Aloysia* (*Lippia*) *citriodora*.'

From Mr F. Thompson came 'cuttings of *Cercis siliquastrum* introduced by the donor from Florence in 1853'. 'This tree is said by tradition to be that on which Judas Iscariot hanged himself' the report adds. Whether or not the Society was successful in striking the 'cuttings', mature and well-grown trees of *Cercis siliquastrum*, the Judas tree, are by no means uncommon in the older gardens in and about Christchurch.

Another donor was Mr C. W. S. Purdie, 'a Cedar of Lebanon believed to be the first imported into the Southern Hemisphere'. This could be the large specimen of *Cedrus libani* now growing in the Armstrong lawn of the Gardens.

Some of the seeds which proved a failure were those of tea; the Gingelly oil plant of India and Shiraz tobacco.

The report states that 'Arrangements have also been made for obtaining large supplies of seeds from the Himalaya

## THE FIRST HUNDRED YEARS

Mountains, through the kindness of H. H. De Bourbel Esq., while from Turkey a large quantity has been promised by Her Majesty's Consul General', and mentions that 'Large quantities of native seeds have, with descriptions, been sent to various Societies all over the world'. This interchange of seed with other botanical institutions is continued today. An average of a thousand packets of seed of New Zealand plants are dispatched annually and a similar number received in exchange.

In its report of 1867 the Society recorded that 'after several attempts' it 'has succeeded in introducing the *Arundo arenarius*, or sea-bent, which from its property of fixing shifting sands, raising the ground at the average rate of nine inches annually, and converting sandy and stony wastes into luxuriant sheep pasture, will at once establish its importance [in New Zealand]'. The plant referred to is the Marram grass (*Ammophila arenaria*). While it may not have achieved all that was expected of it, its 'property of fixing shifting sands' on our sea coasts has been invaluable.

There seems to have been a close liaison between the Society and the Domains Board in the early years and many of the fine trees in the Gardens and throughout private and public estates of Canterbury owe their introduction to the enterprise of these two bodies.

In 1864 thrushes, blackbirds, linnets, skylarks, goldfinches and other English and Australian birds were liberated and 'have done well in most cases'. In 1883 the Acclimatisation Society was granted permission to occupy land in what is now the Woodland and Murray-Aynsley Lawn. Here for some years the Society had its aviaries and ponds for the breeding of trout and other introduced fishes.



### CHAPTER THREE

## *The Men Who Made The Gardens*

ENOCH BARKER, 1830-92

Enoch Barker, a Yorkshireman who received his training in horticulture on some of the large private estates in England, came to New Zealand in 1859 as Government Gardener in charge of the Domains. In 1867 he resigned to establish a nursery and market garden in the Burwood district. It is said that it was his wife who suggested that the nearby seaside suburb should be named New Brighton, after the famous holiday resort in England. Mr Barker was responsible for the planting of many of the older trees which now add dignity and beauty to the Botanic Gardens, Hagley Park and the city. He undertook the raising and propagation of the many plants introduced by the Acclimatisation Society. The Albert Edward oak referred to in other chapters was planted by him.

J. F. AND J. B. ARMSTRONG

Born on the Netherby Estate, on the Scottish border, John Francis Armstrong commenced his horticultural training with a market gardener and seedsman at the age of twelve. After some twenty years' experience, including the posts of head forester and later foreman gardener on the Netherby Estate, he decided to try his luck in Australia and for three years worked on the goldfields of Victoria. Returning to England to his wife and son he entered the service of Mr Rawson of

Washdale Hall in the Cumberland Lake district and remained for several years in charge of the gardens and plantations.

In 1862, at the age of forty-two, he arrived in New Zealand on the ship *Mersey* and four years later he was appointed by the Provincial Government as Government Gardener in charge of the Domain, a position he held for twenty-two years. Ably assisted by his son, Joseph Beattie Armstrong, he devoted all his energies to improving the Gardens and planning their development. Many of the pathways and walks as they are today were designed by him. He was also responsible for establishing a large collection of plants, many of which he propagated for distribution throughout the colony. It is estimated that over four thousand different species, including many of economic importance from all parts of the world, were introduced and acclimatized by him. The importation of living plants in those days was most difficult, the journey from England by sailing-ship would usually take from three to six months and on arrival in New Zealand many of the plants were in a perished condition. They were dispatched in big wooden cases and on arrival were put into the river to revive. The stronger ones lived but many failed to recover.

Joseph Armstrong worked in the Domain and assisted his father for sixteen years. During his leisure time he collected many plants in different parts of the country including the mountain regions of Canterbury. Some plants and seeds he obtained were used for exchange with collectors in other parts of the world. In this way valuable exotic plants were added to the collections of the Domain.

By their combined efforts J. F. and J. B. Armstrong established a comprehensive collection of native plants in a section of the grounds. It was considered one of the best of its kind in New Zealand and many contemporary and later botanists made good use of it.

Both father and son published numerous papers on New Zealand plants, especially those of Canterbury Province.

The Armstrongs seem to have been more interested in the importation, raising and distribution of plants, the development of the Gardens and studying the New Zealand flora than they

## A GARDEN CENTURY

were with providing colourful displays or attending to general maintenance. This attitude did not please the Board, which endeavoured to enforce new conditions such as the keeping of a diary, submitting a monthly programme of work, and concentration on bedding plants. The Armstrongs could not agree to undertake such 'increased and onerous duties' and on 31 October 1889 father and son terminated their employment with the Board.

J. F. Armstrong died in Christchurch in 1902. J. B. Armstrong, on his death in 1926, bequeathed his herbarium and library to the Botanic Gardens. For want of suitable accommodation at the time the herbarium was housed in the Canterbury Museum where it remains to this day.

### AMBROSE LLOYD TAYLOR, 1835-1913

Ambrose Taylor was appointed Curator of the Botanic Gardens and Hagley Park in 1889 and continued until his retirement in 1907.

Before coming to New Zealand A. L. Taylor had had a thorough training in horticulture. The son of a gardener and forester in the service of the Duke of Bedford, he entered the Royal Botanic Gardens, Kew, as a student-gardener and later became head gardener and estate manager to Baron Rothschild. He was also head gardener at Chatsworth, still one of the famous gardens of England, owned by the Duke of Devonshire.

On his arrival in New Zealand in 1889 he found the Domain in a neglected state and although he planned many improvements, these could not be put into effect because of the Board's financial difficulties. Indeed, to such slender straits was the Board reduced that at one time he had to take over the duties of secretary. His term as curator was one of 'unending frustration' but he continued to carry out extensive planting both in the Gardens and Hagley Park. Many of the imposing avenues of trees in Hagley Park are a tribute to his work. It was during his term of office that a large section of the Gardens was destroyed by a disastrous fire. With the generous



## MEN WHO MADE THE GARDENS

assistance of local nurserymen the destroyed area was completely replanted within a short period. Owing to the amount of vandalism occurring in the Gardens Mr Taylor had to be sworn in as a Special Constable.

His son, Edgar Taylor, who for the past seventeen years has been landscape architect to the Parks and Reserves Department of the City Council which now controls the Domain, worked as a youth in the Gardens and is well-known and respected in the nursery trade.

### JAMES DAWES

Little is known of Mr Dawes who was appointed Curator in 1907 after the retirement of A. L. Taylor. His resignation was accepted by the Board the following year.

### JAMES YOUNG, N.D.H.(N.Z.), 1862-1934

James Young was appointed Curator in 1908 and retired in 1933. He began his career in horticulture in 1878 and after serving his apprenticeship and gaining further experience was placed in charge of the gardens at Laxley Glen, Isle of Man. In 1887 he went to Australia as instructor in forestry at Mount Macedon, Victoria. In 1903 he came to New Zealand to take charge of the Ashburton Domain. Five years later he was appointed Curator of the Christchurch Botanic Gardens and Hagley Park. He soon displayed much enthusiasm and activity. The rose garden, then considered to be the largest in Australasia, was established and for many years was the pride of the Gardens. Two glasshouses, the large Cuninghame House and the Townend House, were erected and furnished with plants. Four propagating houses and a number of frames and outbuildings were constructed, as well as other service buildings and the large tea kiosk capable of seating over a hundred people. The formation of the extensive herbaceous border and the planting of a number of shrubberies, including collections of rhododendrons, lilacs and others, were due to his efforts. The children's playground was another of his projects. Probably one of his greatest achievements was the converting of the

large shingle-pits in the south-western portion of the Gardens into attractive garden features. Artesian wells to supply the water for pools were sunk, a bog garden and a rock garden were formed, and an extensive garden of native plants was established.

In 1922 the Christchurch City Council invited Mr Young to accept the position of Parks and Reserves Superintendent in addition to that of Curator of the Domain. Although this arrangement was agreed to, serving two local authorities proved an onerous task and six years later Mr Young resigned his position with the Council.

JAMES A. MCPHERSON, A.H.R.I.H.(N.Z.), N.D.H.(N.Z.)

James McPherson was Curator from 1933 to 1945 when he resigned to take up his present position as Director of Parks and Reserves with the Auckland City Council. He has the distinction of being the first New Zealander to hold the office of Curator. After serving his apprenticeship with the Dunedin Parks and Reserves Department he served for two years as a student gardener at the Royal Botanic Gardens, Kew. On his return to New Zealand he remained for a short period at Dunedin and was then appointed a forester and head gardener to the Westport Coal Company.

In 1926 he became Superintendent of Parks and Reserves in Invercargill and in 1933 he succeeded James Young as curator in Christchurch. Like his predecessor Mr McPherson was responsible for many new features. One of his first projects was the complete redesign and planting of the present rose garden. The existing rock garden, which speaks for itself, was another of his creations. He extended the New Zealand section by adding the Cockayne Memorial Garden and also increased the plant collections throughout the Gardens. The fine display of azaleas and magnolias now to be seen are largely due to his work. Perhaps the most important feature for which he was responsible, and one which adds great attraction to the Gardens in springtime, is the planting of many hundreds of thousands of daffodils in the Woodlands.



## MEN WHO MADE THE GARDENS

BRENDON P. MANSFIELD, N.D.H.(N.Z.), 1904-48

When Brendon Mansfield was appointed in 1945, it was explained to him that the Botanic Gardens and Hagley Park would probably be placed under the control of the Christchurch City Council, in which case he would be subordinate to the Council's Superintendent of Parks and Reserves. This proviso, which took effect the following year, was accepted by Mr Mansfield.

Brendon Mansfield received his early training at what was then the Royal Botanic Gardens, Glasnevin, Dublin, and at the Royal Botanic Gardens, Kew. After experience in nurseries in England he came to New Zealand and for some years was employed as nursery foreman with J. Anderson and Sons of Napier. He was later in charge of the nursery of the Dunedin Botanic Gardens and Parks Department. In 1933 he became Superintendent of Parks and Reserves to the Invercargill City Council and held this position until he moved to Christchurch. During World War II he served overseas with the New Zealand Forestry Unit. He died under tragic circumstances in 1948 and his position as Assistant Director was filled by H. G. Gilpin, the present Director.

MORRIS JOHN BARNETT, M.B.E., A.H.R.H.S., A.H.R.I.H.(N.Z.),  
N.D.H.(N.Z.)

On the passing of the Domains Act in 1946 control of the Botanic Gardens and Hagley Park was vested in the Christchurch City Council and M. J. Barnett, who for the previous seventeen years had been its Superintendent of Parks and Reserves, was appointed Director of Botanic Gardens, Parks and Reserves. This position he held until his retirement in September 1955.

Mr Barnett served his apprenticeship at the Dunedin Botanic Gardens and spent a further two years as a student gardener at the Royal Botanic Gardens, Kew, being the first New Zealander to train there. On his return to New Zealand in 1914 he became head gardener to Mr R. H. Rhodes of Bluecliffs, South Canterbury. During World War I he served with the

N.Z.E.F. in Egypt, Gallipoli and France and was twice wounded. He was invalided home late in 1917 and returned to Bluecliffs. The following year he was appointed foreman of the glasshouses and rock gardens at the Dunedin Botanic Gardens. In 1924 he took charge of the public gardens and parks of the Oamaru Borough Council and in 1928 became Superintendent of Parks and Reserves to the Christchurch City Council.

During his term as Director the reserve garden near the propagating houses was planted with separate collections of paeonies, camellias, clematis and newer shrubs and was thrown open to the public. The rock garden was extended and the erica border established. The area previously occupied by the Acclimatisation Society, now named the Murray-Aynsley Lawn, was ploughed, graded and sown and was planted with a number of new trees procured during Mr Barnett's visit to Britain in 1951. Also in the same area he established the rose species garden and commenced the formation of the primula garden along the banks of the small stream which enters the Avon at this point. Across the river at the west end of the gardens the collection of conifers was extended and a start made to bring under cultivation a waste area which had been used as a rubbish dump. The Fern House was built and planted and the construction of the new Townend House and the Garrick House commenced. It was on his representations to the Council that a loan of £20,000 was raised to finance the building of these glasshouses as well as a library and offices for the staff.

HUIA GRAY GILPIN, A.H.R.I.H.(N.Z.), N.D.H.(N.Z.)

H. G. Gilpin, the present Director of Botanic Gardens, Parks and Reserves, was born and educated in Christchurch and began his career as an apprentice with the nursery firm of W. E. Edginton & Co., Riccarton. Later he joined his father who was head gardener at the well-known factory garden of T. J. Edmonds Ltd.

During World War II Mr Gilpin served with the New Zealand Army Engineers, and later with the Royal New Zealand Air Force where he took charge of vegetable production as well



## MEN WHO MADE THE GARDENS

as grounds and flying-field maintenance. He returned for a short time to T. J. Edmonds Ltd. and then joined the Dunedin Botanic Gardens, Parks and Reserves Department.

In 1947 Mr Gilpin was appointed Grounds Superintendent for the North Canterbury Hospital Board and in 1949 became Assistant Director of Botanic Gardens, Parks and Reserves, Christchurch. He was promoted Director on the retirement of Mr Barnett in 1955.

During his term the new Townend House and the Garrick Cactus House have been completed, a library, and offices for the staff have been built, and water reticulation throughout the grounds completely renewed. The New Zealand alpine garden has been reconstructed and other improvements carried out, such as the landscaping of the old rubbish dump area to make it an integral part of the Gardens. Three fine gateways have been erected at the main entrances to North Hagley Park.

To commemorate the centenary of the Botanic Gardens a new stone and wrought-iron fence has now been erected along the Rolleston Avenue frontage. This fence has replaced the ninety-year-old holly hedge which, until it began to deteriorate, served well during its long life as a most attractive example of a hedge so familiar in bygone years. The fruition of this plan was made possible through the generosity of Mr W. S. MacGibbon, O.B.E., who unfortunately did not live to see the completed fence.

To such men as Enoch Barker, the Armstrongs, father and son, Ambrose Taylor and James Young must be accorded the credit of laying the foundations of the Gardens as they are today. In spite of difficulties they planned and planted for the future. In the words of Leo Grindon: 'It is counted fine to raise a splendid pile of stone, or marble, to paint a sublime picture, to compose a brilliant opera. Perhaps the man who multiplies trees of glorious sort . . . achieves in his day quite as genuinely as good an end. He makes the world richer than he found it, a good that any man may be proud to accomplish.'

#### CHAPTER FOUR

## *The Gardens Throughout The Year*

THE face of the Gardens is constantly changing and no matter what the season there is always something different to be seen. Some special plants may be in flower, others may have attractive foliage, or it may be winter when the deciduous trees display their naked majesty. The thousands of people who visit the Gardens throughout the year always find something to capture their interest. There are keen gardeners in search of ideas for their home gardens, botanists wishing to study special plants, photographers in search of subjects, and people who simply wish to get away from the bustle of city life. All can admire the fine specimen trees, the extensive lawns and well-kept beds and borders of shrubs and other flowering plants. Few, however, realize the variety of work necessary to maintain the Gardens in good order throughout the year.

Although the seasons give no respite, spring, when growth commences anew, may be regarded as the beginning of the gardener's year. Every season has its own charm but the spring months are the time when the Gardens appear most spectacular. In few other gardens in New Zealand will one see such a glorious array of spring flowers and green lawns and the fresh beauty of the large deciduous trees breaking into leaf. With the coming of August the weeping-willow trees along the banks of the River Avon break into a tracery of green while most other leafless trees are still in tight bud; in the Woodland snowflakes



## THROUGHOUT THE YEAR

and early narcissi appear and in other parts of the Gardens the almond uncovers its pink blossom and other varieties of *Prunus* break into flower.

In September the lengthening days and the growing warmth of the sun bring more plants into bloom. No fewer than two hundred different varieties flower in the Gardens during this month. The bright golden *Forsythia* is always outstanding while other trees and shrubs, such as *Corylopsis*, *Camellia*, *Rhododendron* and *Prunus*, all contribute towards the display. During the middle part of September the Yoshino cherries and daffodils transform the Gardens into a scene of unbelievable charm; the hundreds of thousands of daffodils in the Woodland also attract visitors from all parts of the country. Throughout September the kowhai trees show their golden flowers to announce the arrival of New Zealand's spring and attract the occasional tui from the hills to feed from their nectar.

October is without doubt the best month of the year in which to see the Gardens. Everything looks fresh and green; everywhere trees, shrubs and other plants are flowering and the warm spring air is filled with the perfumes of flowers. On the Cherry Mound the Japanese cherries blossom and, when the flowers fall, thickly carpet the ground with pink. Azaleas and rhododendrons provide bold splashes of colour, the flowering apples add a softer tone to the scene and in the rock garden many exquisite plants such as *Saxifraga* and *Gentiana* delight the eye. The bedding plants reach the peak of their display and in the formal beds on the Armstrong Lawn wallflowers, polyanthus primroses, forget-me-nots, pansies and tulips demonstrate their beauty to Christchurch's garden-minded citizens.

This is a month of rapid growth; stimulated by sunshine and showers, plants seem to burst forth overnight. The grass grows rapidly too and the lawn-mowers are busy working their way from one end of the Gardens to the other. The gardeners are kept busy also, hoeing and weeding borders, tying and staking herbaceous plants. In the rose garden spraying and tending of the bushes is carried out so that November will see another crop of perfect blooms.

By the end of October the display of spring-flowering plants

is practically over. The beds are again prepared and the summer-flowering subjects take their place.

In all, some thirty-eight beds and borders are planted every season; for the summer display approximately thirty thousand plants are used. Geraniums, begonias, zinnias, fuchsias, salvias and many other summer bedding plants keep the Gardens gay throughout the summer and autumn when most of the trees and shrubs have finished flowering.

From November until Christmas is one of the busiest times of the year. Bedding-out occupies three to four weeks, during which time routine work such as lawn-mowing and watering must also be attended to, and then the whole of the Gardens must be made tidy in readiness for the holiday season. Watering is often quite a problem; the well-drained, sandy soil, while in some respects excellent for plant growth, dries out rapidly with the hot Canterbury north-west winds and millions of gallons of water are used each summer. Until a few years ago water for the Gardens was pumped from the River Avon. A recently-installed artesian well, and a new reticulation system now ensure that there is an adequate and trouble-free supply throughout the grounds. Water is pumped at the rate of eighteen thousand gallons an hour and is fed into three miles of piping.

The early part of the summer, although it is an in-between period for flowers, is a time when visitors have a chance to appreciate the beauty of the various types and forms of foliage. On most of the trees the foliage is fully developed and is unspoiled by strong, drying winds or storms. The large copper-beech trees, of which there are several fine specimens, are particularly handsome as the foliage is then at its brightest and deepest hue. The golden elm, maples, oaks and many others are also at their best.

The Gardens are well-known for their trees. Visitors from overseas are usually astonished at the size many have grown in such a short time. There is always work to be done on the trees. As they grow older more tree surgery becomes necessary to keep them in good health; wounds need periodic treatment to prevent disease, rotting wood must be chiselled away before



## THROUGHOUT THE YEAR

it has a chance to impair the healthy tissues, and branches need bracing to prevent their splitting away from the trunk.

Insect pests can be a trouble, too. A few years ago, for example, a small moth (the oak-leaf miner) threatened the oak trees. Science came to the rescue and two species of small parasitic wasp introduced from Europe now effectively control this pest.

With the start of the new year the Gardens are again gay with brilliant flowers. The displays of geraniums, zinnias, marigolds, begonias and many other annuals and seasonal bedding-plants approach their peak, and these, together with other summer flowers, ensure that those in search of colour have never far to search for it. The herbaceous border is a never-ending source of interest and in the rock garden species of *Dianthus*, *Gentiana* and many other rock plants bloom.

The cool, restful atmosphere of the bog garden relieves the summer's heat. In the lake the water is studded with water-lily flowers in shades of red, pink and white. Among the lily leaves bullfrogs croak in noisy chorus while in the surrounding trees cicadas sing of summer days.

Hoeing, weeding and watering are still routine jobs and, although the grass does not grow as quickly at this time of the year, there is still mowing to be done. In the rose garden the plants commence their second flowering and cutting the spent blooms from hundreds of bushes is a full-time job. As control measures must not be neglected, the roses are sprayed regularly to prevent attacks of mildew, red mite and other diseases.

In the Woodland the foliage of the daffodils has at last died away and the long grass can be cut. Away in the trees can be heard the chattering of the cutter-bar while the scent of new-mown hay hangs in the summer air.

Already preparations are being made for the following spring and right through February the work goes on. In the propagating department the staff are growing polyanthus, *Myosotis*, *Bellis* and other annuals in readiness for the spring-bedding displays. At the same time several thousand geranium cuttings must be taken; after being carefully trimmed with knives they are inserted in beds of sand and, when rooted, are

potted into specially-made soil blocks. These will be the plants for the following summer.

Towards the end of February the nights become cooler, the air a little crisper and there is a hint that summer is nearly over. March sees the arrival of autumn, of misty mornings, the promise of an early frost and of falling leaves. To the gardener it means many hours to be spent raking fallen leaves into heaps to be carted away and composted into valuable leaf-mould.

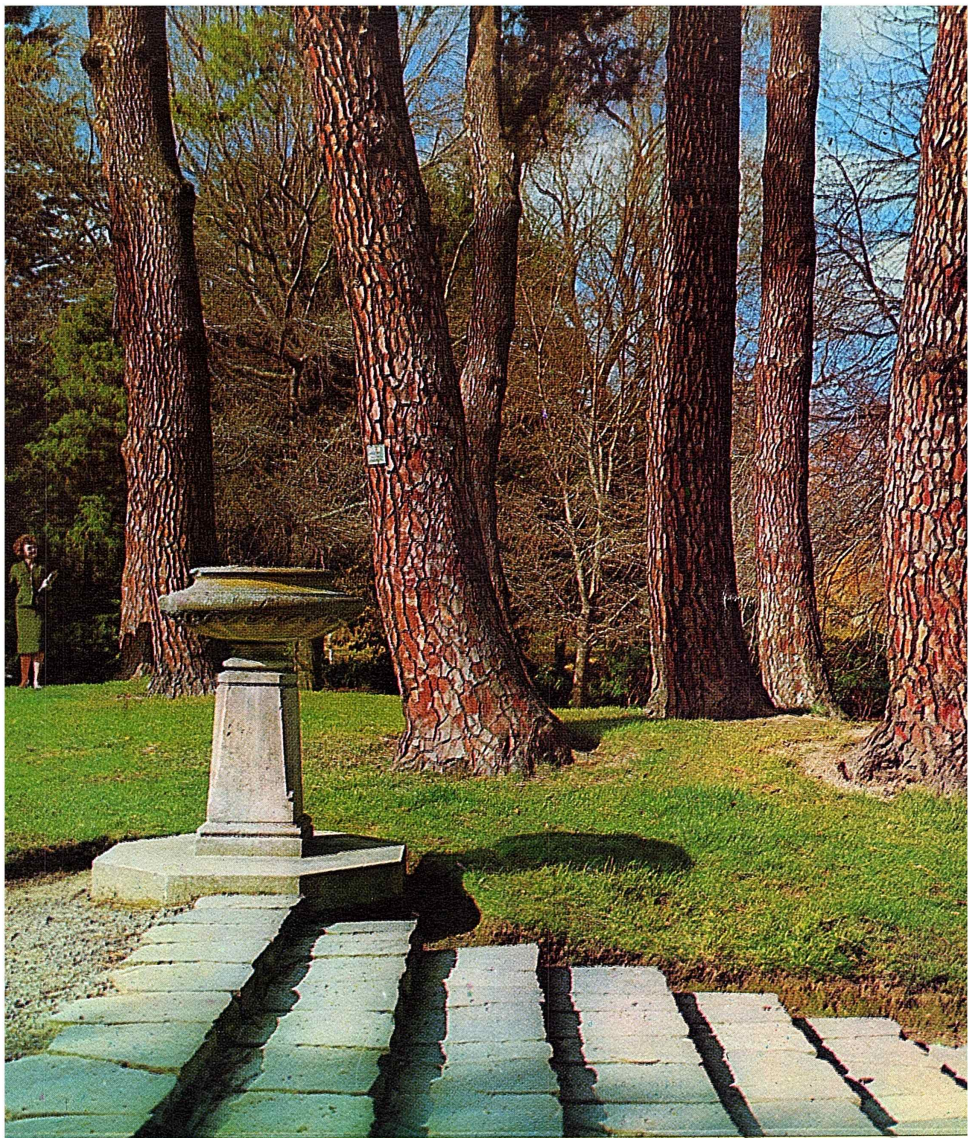
The golden ash is the first tree to show true autumn colour; seen against a clear blue sky in the afternoon sun, it presents the perfect picture of autumn. The large cedar wattle (*Acacia elata*) commences flowering in March; in the rock garden *Colchicum* and autumn-flowering species of *Crocus* flower, roses still bloom in the rose garden and in the herbaceous border perennial asters, *Salvias*, the tall golden rod and other autumn-flowering perennials make a final showing for the season.

Conditions for plants to produce their brightest autumn colouring do not always prevail in Christchurch but if the season has been good April finds many of the trees and shrubs at their best. Frequently, because of the long mild autumn, the colours are not produced in one glorious but short display; often they come in a seemingly-endless procession over a period of six to eight weeks. The display is none-the-less impressive for that.

During this season some glorious views are to be seen: the tall Lombardy poplars silhouetted against the sky like bright golden pillars, the linden trees, each on its carpet of gold, and the birch trees casting their reflections in the waters of the Avon. Many other trees and shrubs, too numerous to list in full, show good autumn colour. To name but a few: the two North American oaks, the pin oak and scarlet oak, are usually magnificent, the Japanese cherries turn brilliant scarlet and orange, others outstanding include *Populus grandidentata*, various maples, barberries and later the *Liquidambar*.

At the beginning of May the summer flowers are removed, the soil dug over and prepared and the beds again planted with their spring-flowering subjects. This work occupies about two



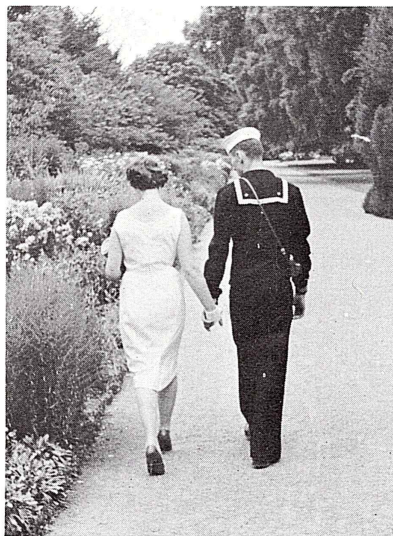


Winter sunshine plays on the patterned trunks of the cluster pines (*Pinus pinestra*), now well over eighty years old.





Part of the extensive daffodil Woodland.



On a summer afternoon.



Adventure in the paddling pool.



Sunday visitors to the Gardens listen to the band on the Archery Lawn.







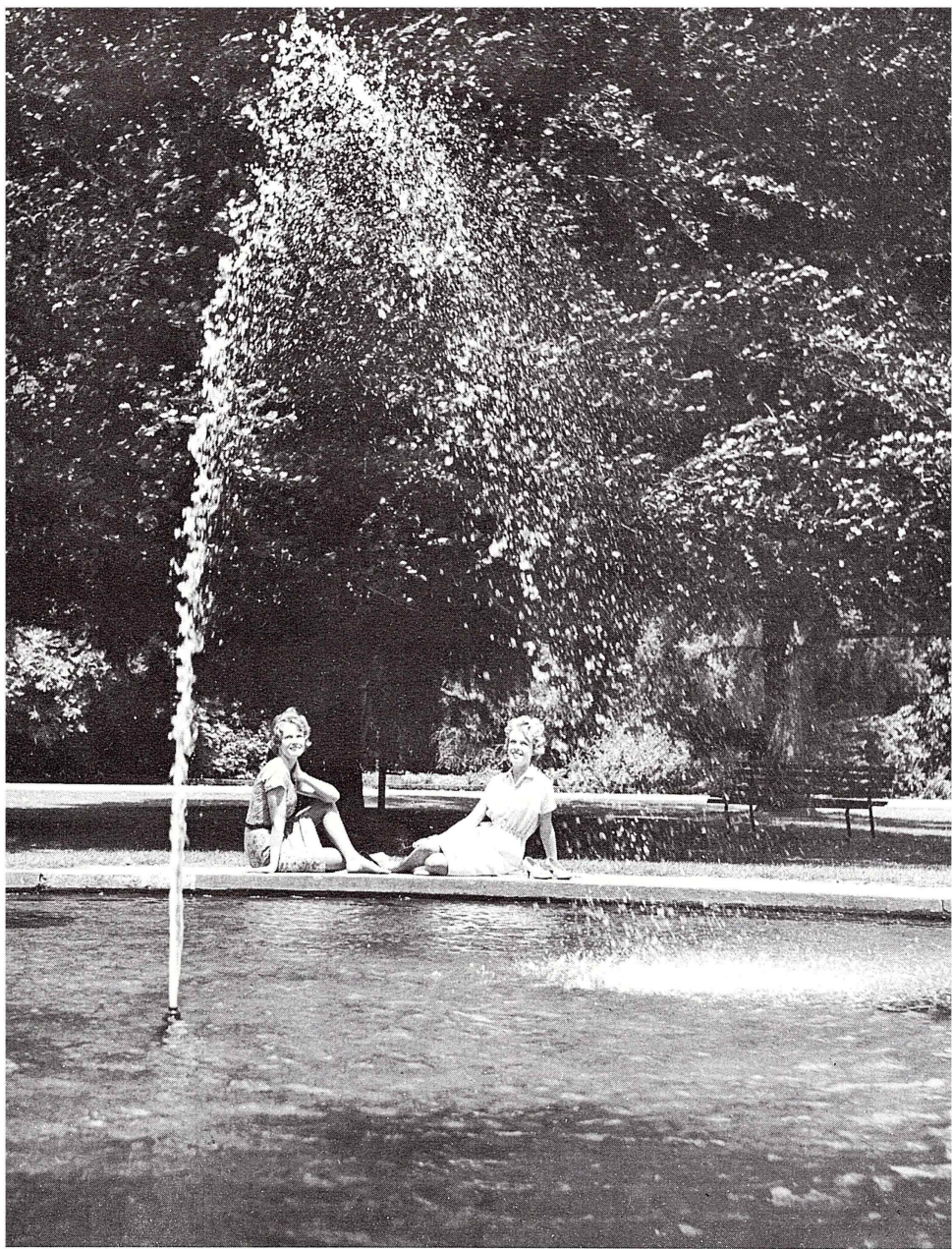
Spring brings delicate colour to the Cherry Mound when the Japanese cherry trees are in blossom.





The daffodil Woodland by the River Avon.





The cool waters of the Archery Lawn fountain sparkle in the summer air.





Sunlight and shadow in Harman's Grove.



Time to relax.













Lunch-hour by the river. On the far bank are the grounds of the Christchurch Hospital.





One of the entrances from Rolleston Avenue. The statue is of W. S. Moorhouse, a former Superintendent of Canterbury.



Fun in the playground.





Tulips, polyanthus and other spring flowers greet the visitor near the main entrance. In the background is the Canterbury Museum.





Over two thousand bushes bloom in the formal rose garden.



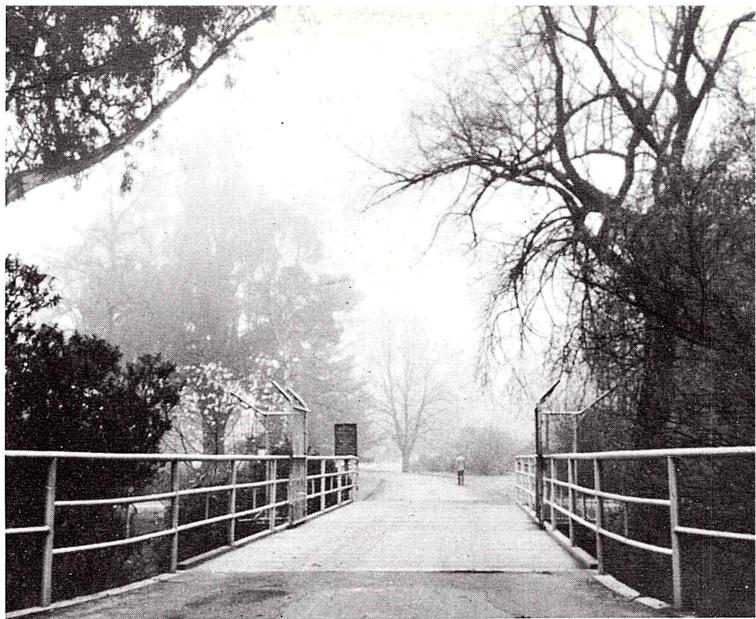


Autumn leaves carpet the ground at Beswick's Walk.

The cherry trees cast patterned shadows from the winter sun.





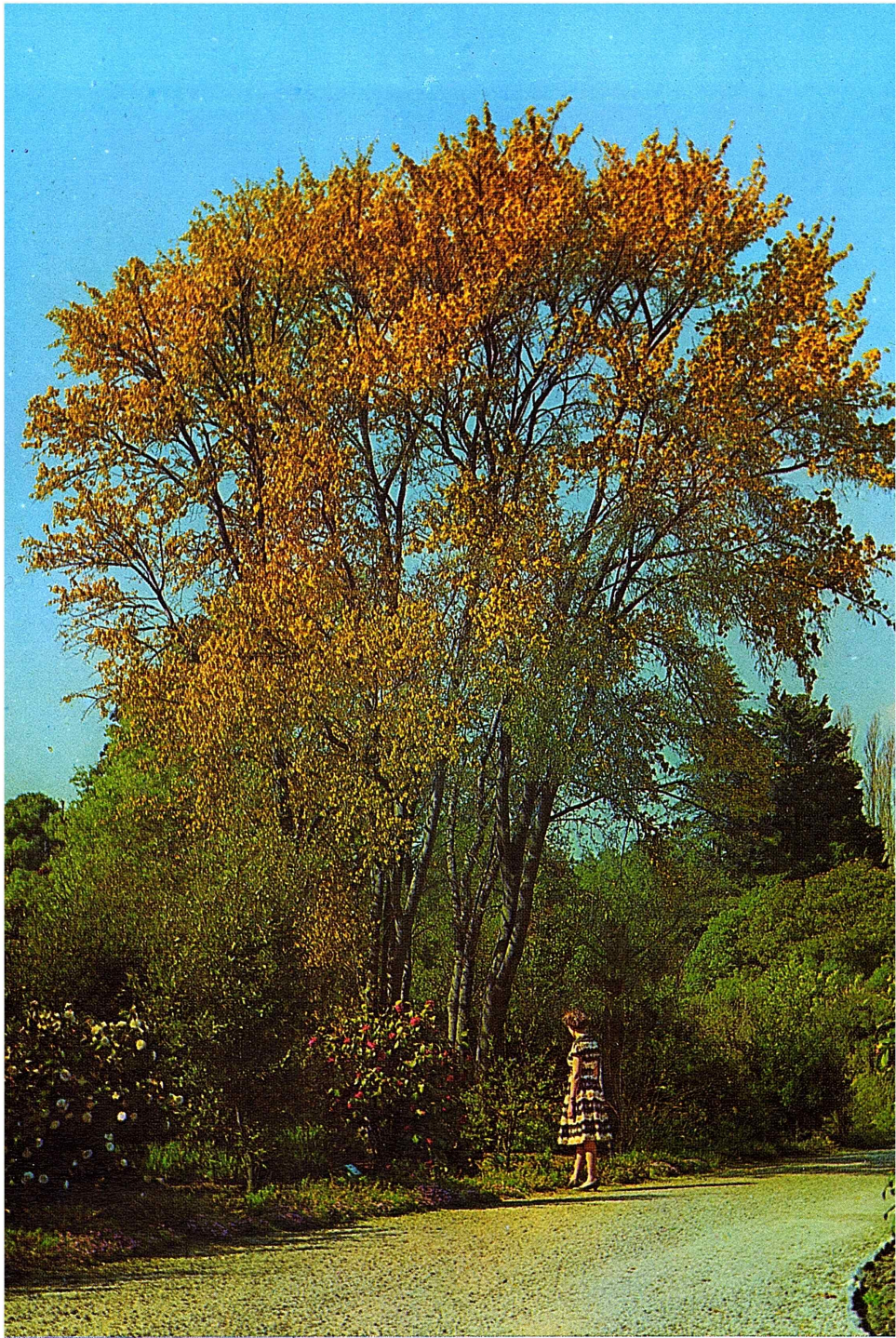


The morning mists of winter, a scene by the west bridge.

Many city people walk through the Gardens on their way to work.







The native kowhai (*Sophora microphylla*) flowers in early spring.



## THROUGHOUT THE YEAR

weeks during which time some twenty-seven thousand plants are handled, including nine thousand bulbs. After bedding-out comes the final raking of autumn leaves and then the gardener is free to concentrate on the winter's work.

Winter in the Gardens is a time of frosty mornings, foggy days, rain or brilliant sunshine depending on the mood of the weather. The deciduous trees stand in bare beauty as gaunt spectres against the dull sky or, in other days, the delicate tracery of their branches is outlined with frost against a background of blue.

Even during the darkest days of winter there is always something in flower and some plant of interest to be seen; if the weather is too cold outside there is always the humid heat of the tropic house where for a short while one can escape the season.

This is a very busy time and on a frosty morning the gardener is glad that there is digging to do. All the borders must be dug over and everything made tidy for the coming spring. New trees and shrubs are planted, old or debilitated specimens replaced. Spraying must not be neglected and such subjects as the flowering apples are sprayed with oil to prevent and control the attacks of scale insects.

It is surprising how much is in flower in the Gardens during the winter. In the Australian section *Grevillea* and *Correa* flower continuously, a sweet scent in the air indicates that the wintersweet is flowering nearby and the spidery yellow flowers of the witch-hazel are lit with the afternoon sun. Under the Japanese maples winter roses in a variety of shades are flowering and in several parts of the Gardens varieties of *Erica* contribute their colours to the winter scene. The Japanese apricot and the Cootamundra wattle break into bloom before the winter is over and tell the gardener that spring and the start of another gardener's year are just round the corner.

## *Lawns, Avenues and Vistas*

Two of the fundamental principles when designing a public garden are to make provision for spacious lawns, and to create paths of adequate width, that lead comfortably from one feature to another. In the Botanic Gardens these principles have been successfully applied.

Following the precedent set by the naming of Beswick's Walk and Harman's Grove it was recently decided to name some of the lawns after members of the first Domain Board constituted in 1877.

**THE ARMSTRONG LAWN:** For many years this was known as the 'front lawn'; it was named after J. F. Armstrong in recognition of his valuable services to the Gardens. As seen today, with its fine specimen trees, many of which are of historical interest, its colourful and well-ordered flower-beds and its wide expanse of sward, it is difficult to realize that it was once a vast shingle pit.

**THE ARCHERY LAWN:** This is separated from the Armstrong Lawn by the Pine Mound and the Evelyn Couzins Memorial. In less than a hundred years it has achieved an appearance of age and dignity usually associated with a much older garden. The stately sequoias (*Sequoiadendron gigantea*) along its northern flank were raised from seed in 1873. The other trees on the Archery Lawn must also have been planted at an early date for they are all large specimens. Near the north-western corner is a silver Atlas Mountain cedar, the trunk of which has a girth of twelve feet six inches; nearby is an equally large speci-



## LAWNS, AVENUES AND VISTAS

men of the Himalayan white oak, *Quercus incana*; further along are two other evergreen oaks, *Q. suber* (the cork oak) and *Q. ilex* (the Holm oak). On the southern side are two large linden trees: one is the common linden or lime, *Tilia europaea*, and the other the small leaved linden, *T. cordata*.

Until 1889 the lawn was used as a range by the local archery club. The western end was a croquet green until about the same year.

**THE HARPER LAWN:** Until 1938, when the rock garden was constructed, this was a wilderness of rough grass and lupin and formed part of the horse paddock. Now, in addition to presenting a fine stretch of turf, it is bordered by the heath garden and the waterlily pool. The oak trees and border of rhododendrons which provide excellent shelter along its southern boundary were already well grown when the lawn was made.

**THE MURRAY-AYNSLEY LAWN:** For many years this area was under the control of the Acclimatisation Society. The lawn was formed and planted in 1955. In a woodland setting, and to some extent separated from the rest of the Gardens, it has an air of seclusion and quiet beauty which few lawns can excel.

**THE HALL LAWN AND POTTS LAWN:** These two small lawns, flanked on the north by the River Avon, lie between the propagating houses and the children's playground.

**HARMAN'S GROVE:** The Woodland across the river, except the daffodil area, is one of the lesser-known parts of the Gardens. It contains tall oak trees and covers an area of five acres. Harman's Grove is a refreshing place at all times. A walk along the banks affords some good views of the river and the green grass under the shade of the trees is cool and pleasant during the heat of the summer; in spring there is the new green of the trees breaking into leaf; in the autumn children love to walk ankle-deep through the thickly-fallen leaves. But perhaps the best time to see Harman's Grove is on a misty winter's morning when shafts of light slant through the tall trees and play on their furrowed bark.

**BESWICK'S WALK:** The name of H. J. Beswick is commemorated in the fine avenue of linden or lime trees (*Tilia europaea*)

which runs from north to south, starting at the Magnetic Observatory and finishing at the rock garden. Beswick's Walk was formed and planted in 1917 and now that the trees almost meet overhead it has developed into a beautiful avenue. During mid-summer the scent of the linden trees in flower hangs heavily in the warm air attracting myriads of bees. There is no doubt, however, that the best time of the year is the autumn when the trees turn a bright golden-yellow and a golden carpet is formed by the falling leaves.

**CENTRAL LAWN AND STAFFORD LAWN:** The Central Lawn and Stafford Lawn are situated respectively to the south-east and south-west of the rose garden. The Central Lawn has an open character with a fine sunny aspect and is dominated by a large purple-beech (*Fagus sylvatica* var. *atropunicea*) and a golden elm (*Ulmus procera* 'Vanhouttei') which in the early months of the summer make an admirable contrast.

The Stafford Lawn has a gently undulating surface and is planted with specimen trees which give it a character quite different from that of any other lawn in the Gardens.

**THE PAULOWNIA LAWN:** On the lawn along the western and southern sides of Magnetic Observatory are the *Paulownia* trees which have given their name to this lawn. Although sometimes known as the Imperial Tree of Japan. *P. tomentosa* is really a native of China and is only cultivated in Japan. Each October the almost leafless branches break into a mass of pale violet foxglove-like flowers, and most people are surprised to learn that this tree does indeed belong to the foxglove family. Recently several other species of *Paulownia* have been planted here.

**VISTAS:** The best-known vista is from the central path through the maple border, looking straight up the Archery Lawn. Another well-known view is from just inside the Museum gate, looking south towards the Director's residence. It is very formal, with the straight lines of the broad walk flanked by a row of flower-beds along the Armstrong Lawn. In September, when the daffodils in the Woodland are in flower, the vista down-river from the Woodland Bridge is most attractive



## LAWNS, AVENUES AND VISTAS

and is as well-known as that of the Archery Lawn. Possibly because the more colourful daffodil Woodland attracts the eye, the view upstream from the Woodland Bridge is not so well-known. However, particularly in the summer, it is one of the most picturesque. From the bridge can be seen a long stretch of the River Avon flanked on both sides by tall trees and weeping-willows with their pendant branches reaching down to the waters of the stream.

## *Ornamental Waters*

IN a garden surrounded on three sides by a river, and with a vast artesian supply beneath it, water deserves a prominent place in its design. The Christchurch Botanic Gardens, which could once boast of nothing more than a weed-choked stream, now contains fine lakes and pools with splashing waterfalls and sparkling streams, while the Avon, like the ugly duckling, has been transformed into one of the most beautiful features of the Gardens.

When the river was cleared of its original dense growth of flax and sedges is not known but by the 1870s public bathing in the river had become a popular pastime for the men and youth of the settlement. The official bathing-place was opposite the site of the present propagating department. In 1881 the Domains Board began to thin the trees in this area and form the path along the river. This caused a storm of protest from would-be bathers and much correspondence in the *Lyttelton Times*. One writer condemned the Board for doing something 'against the wishes of those hundreds of bathers, and a large majority of the general public, who unhesitatingly wish that the young may be learnt to value a bath as a health giving and health retaining privilege'. On the other side a correspondent wrote, 'the spectacle of a hundred men and big boys capering about stark naked on the riverbank every afternoon during the summer season, within full view from the principal walk, is not—to say the least of it—very conducive to public morality'. Apparently the 'health retaining privilege' of bathing in the river did not extend to the ladies.



Today the River Avon is one of the most attractive features of the Gardens and on the mile-long River Walk beautiful views unfold every few yards. Most people will agree that spring, when the daffodils and Yoshino cherries (*Prunus yedoensis*) are flowering and the willows are breaking into leaf, presents the finest spectacle. Certainly spring is a beautiful season, but so too is autumn when the bright tinted foliage is reflected in the waters, and even winter, when the mists rise on a frosty morning, is not without charm.

The weeping-willows (*Salix babylonica*) are the most conspicuous trees along the River Walk. It is generally believed that the willows by the Avon are descended from the tree at Napoleon's grave on the island of St Helena; French settlers who arrived at Akaroa on nearby Banks Peninsula in 1840 are credited with bringing out cuttings of the tree. The known facts are rather indefinite. A. Selwyn Bruce, in *The Early Days of Canterbury*, says that the first weeping-willow was introduced into Christchurch from Wellington in 1864, but by that date the French had already established the weeping-willow at Akaroa and cuttings were sent from there to all parts of the colony.

Of the other willows planted along the river-bank, not all are large trees and some are definitely ornamental garden plants. One curious specimen likely to catch the eye is *Salix matsudana* 'Tortuosa'. This is a variety of the Pekin willow and its curiously twisted and contorted young branches give it a most unusual appearance. Two specimens grow by the western part of the River Walk. Nearby is a small species which has more the appearance of an *Elaeagnus*, or some other shrub, than that of a willow. It is *Salix elaeagnos*, the hoary willow, and comes from Europe and Asia Minor. The leaves are long, very narrow and covered underneath with a thick white felt. It forms a broad bush up to twelve feet in height. By the West Bridge the yellow-barked branches of the golden willow, *S. alba* var. *vitellina*, gleam brightly in the winter sunshine. Some species have ornamental catkins in the spring. In addition to *Salix caprea*, the goat willow, there are *S. purpurea*, *S. daphnoides* and *S. irrorata*. The violet willow, *S. daphnoides*, as well as having

striking catkins has purplish stems covered with an attractive waxy bloom which makes a pleasing effect in the winter.

The oldest existing lake in the Gardens is situated between Townend House and the tea kiosk and is popularly known as the Kiosk Lake. Originally a shingle pit, it is the largest of the three lakes in the Gardens and features a small island dominated by a large specimen of *Sequoiadendron*. Over the years the rhododendrons, cherries and other trees and shrubs growing along its bank have matured and the scene now presents a very natural if slightly overgrown appearance. The best time to see the Kiosk Lake is in the autumn when the waters mirror to perfection the tinted foliage of the silver birch (*Betula pendula*), the paper birch (*B. papyrifera*) and cherry trees. On the island is the large-leaved Japanese bamboo (*Sasa palmata*) which has attractive foliage. On the western bank of the lake is a specimen of *Cupressus lusitanica* which is often known erroneously as the Cedar of Goa. It has been in cultivation for about three hundred years and its native country was once a matter for speculation. It is now known to come from Mexico.

The lake in the bog garden, the iris pond and the lake in the New Zealand section were the next to be constructed; formation work was the main project for the winter of 1920. Originally they were all large shingle-pits. Much of the metal for paths was obtained from these pits and the sale of metal financed the building of the Director's house in 1920, the cost being £2,300, a modest sum when compared with the cost of such a building today.

The trees and shrubs round the bog garden have now matured and some have assumed majestic proportions. It is difficult to realize that the scene has evolved in a period of just over forty years. During the summer waterlilies flower in profusion, their leaves thickly covering the surface of the water—so much so that every few years they have to be lifted, the lake cleaned out and their thick spreading rhizomes replanted. In the water round the edge of the lake clumps of the handsome blue-flowered pickerel weed (*Pontederia cordata*) flourish. It is an aquatic plant from eastern North America and the



olive-green leaves form a pleasant contrast for the spikes of blue flowers.

Round other parts of the lake the variegated sweet flag (*Acorus calamus* 'Variegatus') and the marsh marigold (*Caltha palustris*) creep out into the water, the golden flowers of the marigold being particularly attractive. The sweet flag belongs to the Arum family but the green-and-cream variegated leaves often cause it to be mistaken for an *Iris*, which it closely resembles. All parts of the plant give a pleasant scent when crushed and the root has been much used in medicine since the days of Hippocrates and is also mentioned in the writings of Theophrastus and Dioscorides.

In the borders round the edge of the lake, bog and moisture-loving herbaceous plants from all parts of the northern and southern temperate zones thrive and flower in succession throughout the greater part of the year.

Bold clumps of the huge rhubarb-like *Gunnera chilensis* spread leaves, up to five feet across, over the water and cause many visitors to wonder if they are not some giant form of rhubarb. The two plants are quite unrelated; the *Gunnera* belongs to the *Haloragidaceae* family and rhubarb to the knotweed family (*Polygonaceae*). The Cape honey-flower (*Melianthus major*) from South Africa is another distinctive plant. In the south-eastern part of the bog garden it grows happily beside the *Gunnera*. The stems reach ten feet or so in height and the red-brown flowers are well contrasted against the grey-green leaves. Close by is another South African plant, the golden arum (*Zantedeschia albo-maculata*). In various other parts on the water's edge is the ordinary white arum (*Z. aethiopica*) which is naturalised in many of the warmer parts of the country.

October is one of the best times in which to see the bog garden for then the surrounding borders are gay with flowers. The bright blues of the Siberian iris (*Iris siberica*) are particularly attractive while other plants such as the globe flower (*Trollius europaeus*), *Primula* spp., *Peltiphyllum* and *Bergenia* are all in bloom during this month. At the same time the tree and shrub borders, which form such a pleasant background,

are colourful with rhododendrons, azaleas, *Prunus*, *Stachyurus*, *Enkianthus* and many other flowering shrubs.

In the border on the south-western side of the lake a large tulip tree (*Liriodendron tulipifera*) can be seen, and nearby a specimen of *Liquidambar styraciflua* which retains its brightly-tinted leaves until late in the winter. Growing underneath these trees is an attractive evergreen shrub from Japan, *Eurya japonica*, which in the spring unfortunately produces masses of evil-smelling flowers. One is prompted to wonder whether it is by chance or design that planted on one side of it is the sweet-smelling wintersweet (*Chimonanthus praecox*) and on the other the spicy *Calycanthus floridus*.

Further round the path and past the little footbridge is the pagoda tree (*Sophora japonica*) which, unlike its New Zealand relative, does not flower until the autumn, the flowers being white. *Sophora chrysophylla* from Hawaii is growing nearby and has more the appearance of the New Zealand kowhai. Normally it begins to flower in June and continues intermittently until late spring. In the western portion of the bog garden various species of *Berberis* are very colourful in the autumn and early winter, and in the spring the flowers of some are quite attractive.

A specimen of the New Zealand rimu (*Dacrydium cupressinum*) on the eastern side of the lake shows how this forest tree can be used as a garden specimen. Growing next to it is a specimen of the rare yellow form of the southern rata (*Metrosideros umbellata*) which, unfortunately, is very shy of flowering.

Separated from the bog garden by a narrow strip of land is the lake which forms part of the New Zealand section. An artesian well feeds this lake which in its deepest place has a depth of six feet. A few years ago the Acclimatisation Society liberated some small trout in it; these are now growing into fine young fish and, where the steps lead down to the water's edge on the eastern side, they come regularly to be fed.

The small iris pond on the northern side of the Bog Garden is most attractive in November and December when the Japanese irises are in flower. These are planted on small



## ORNAMENTAL WATERS

islands dotted round the pond and provide a charming effect. Autumn, too, is interesting and when the leaves of the cedar wattle (*Acacia elata*) fall, fluffy pale-yellow blossoms sail merrily across the surface of the water.

The newest pond in the Gardens is at the western end of the Harper Lawn and forms an adjunct to the rock garden which was constructed in 1938-9. The combination of rock and water makes it very attractive, especially in the summer when there is a fine display of waterlilies in shades of pink, crimson, white and yellow.

On the western side of the pond, where the grass comes to the water's edge, two species of *Gunnera* thrive. The smaller of the two is *Gunnera chilensis* which grows in quantity round the bog garden, while the larger one is *G. manicata*, a native of southern Brazil. *Gunnera manicata* has been described as the most magnificent of waterside plants. It makes a huge clump over twenty feet across and nine feet high; under good conditions the leaves grow to more than six feet across.

## *Birds of The Gardens*

THE visitor to the Gardens can now enjoy the abundance and tameness of the birds which inhabit the canopy trees and shrubberies, and it is not easy to remember that this city was built on an almost treeless plain with, at most, only small isolated patches of mixed bush and scattered trees or shrubs along the swampy river margins. Within a hundred years the scene has been completely transformed.

It is worth special note that the list of tree-living birds found in the Gardens includes both native and introduced species. The native birds belong to the forest, and it is because of the man-made environment of trees and shrubs that they have been able to colonize a once unfavourable region. Probably from their natural habitat on Banks Peninsula, the nearest area of original forest, these birds have moved into the expanding city, including the Gardens.

The commonest bush birds in settled districts of New Zealand are the fantail (*Rhipidura fuliginosa*) and the grey warbler (*Gerygone igata*), both familiar inhabitants of the Gardens. Characteristic of the fantail is its graceful, swooping flight between the trees. In the Gardens both pied and black forms are present. The grey warbler has a delicate, trilling song, familiar to everyone although the bird is not often seen. It has dark grey plumage, paler below, and white-tipped outer tail-feathers. A third small bird that can claim to be a native is the silvereye or waxeye (*Zosterops lateralis*): although it arrived only after settlement had begun, in 1868, it is now well-known in every garden and widely distributed in native



## BIRDS OF THE GARDENS

forest. The self-introduction of this eastern Australian bird across the Tasman Sea has been followed by the arrival of a number of other species, and some of these, too, have become established. The silvereye comes readily to feeding tables, especially for any sweet substances and fat.

Another native bird, the kingfisher (*Halcyon sancta*), has probably become more widely distributed since settlement began, for it is largely a tree-inhabiting species, and its nest tunnel is often situated in a decaying willow branch. It does not depend on fish, unlike its namesake in Britain, but exists largely on insects, worms, lizards and other creatures which it captures on the ground; crabs and other marine items are obtained nearby on the estuary of the Avon and Heathcote rivers.

The native birds mentioned often live happily amongst artificially planted vegetation, even although entirely exotic. In recent years it has been noted that heavily-settled districts, even inside the city, have an attraction for native birds that are mainly inhabitants of the remaining bush areas. Several natives that visit the Gardens, or visited them formerly, come into this category, especially the tui (*Prosthemadera novaeseelandiae*) and native pigeon (*Hemiphaga novaeseelandiae*). Although such birds may be primarily attracted by special food supplies—tuis come eagerly to flowering kowhai or to the Australian gums on Cashmere Hills—they may also be in process of adopting more permanently the maturing exotic stands and plantations which earlier would have provided only meagre shelter and food. So far, pigeons have been only occasional visitors to the Gardens: Edgar Stead recorded that one stayed for about six months in 1926; the most recent visit appears to have been in 1954. The tui, a handsome honey-eater distinguished by its iridescent blue-black plumage and prominent white throat-tufts, is a regular caller, and one or two are seen every year.

Although the second common forest honeyeater, the bell-bird (*Anthornis melanura*), appears regularly in gardens on the Cashmere Hills, it is not known in the Botanic Gardens or in the central city area. A kaka (*Nestor meridionalis*) which

visited Riccarton Bush and later the Gardens one week in 1950 was certainly only a temporary visitor; this forest species occurs in the Arthur's Pass National Park, and may even have come from one of the forests of Westland.

In contrast to these species, one that was formerly a regular visitor appears to have retreated to the neighbouring forest remnants—this is the yellow-breasted tomtit (*Petroica macrocephala*) which was recorded as late as 1938 (L. W. McCaskill). Up to this time it came to various parts of the city, and even nested occasionally within the city area. At present it occurs in several patches of bush on Banks Peninsula. One was seen on the outskirts of the city in the Horotane Valley in October 1960 (M. D. Gunn).

Mention should also be made of the migratory shining cuckoo (*Chalcites lucidus*). It is a summer visitor which signals its arrival, generally in September each year, by its arresting call; this series of drawn-out whistles, ending in a single long descending note, is heard regularly throughout the summer until the bird's departure in February or March. The plumage of the shining cuckoo is bronze-green above and the breast is cross-barred, alternately pale and dark.

The introduced birds comprise mainly the tree-inhabiting species brought from England in the early years of settlement and now thoroughly established here; other species were imported from Australia and North America. House sparrow (*Passer domesticus*), song thrush (*Turdus ericetorum*), black-bird (*Turdus merula*) and starling (*Sturnus vulgaris*) are all familiar birds. The various finches are less generally known; of four species found in the Gardens the chaffinch (*Fringilla coelebs*) is the most familiar and joins any group of small birds feeding on the lawns. The male's bright pattern—chestnut-red breast, bluish crown and conspicuous white double wing-bar—is especially attractive. The somewhat drab female is immediately recognized amongst the sparrows by her elegant shape and, like her mate, she has a double wing-bar. The greenfinch (*Chloris chloris*) is of comparatively heavy build, with dull green plumage and bright yellow patches on the wings and sides of the tail. The goldfinch (*Carduelis carduelis*) has a



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conspicuous black, white and red head and gold bar on the wing. Finally, the redpoll (*Carduelis flammæa*) with red crown and black chin, is brown, with a deeply forked tail; the adult male has the breast washed, often quite brightly, with red. The redpoll although perhaps not seen closely, is often recognized by its graceful, dipping flight over the trees. All these finches have distinctive call-notes; active, noisy, mixed flocks, sometimes in hundreds, can be seen in autumn or winter in Hagley Park, and occasionally in the Gardens.

The hedge sparrow (*Prunella modularis*) is less well known than the other small introduced birds, but is especially characteristic of the Gardens with their dense shrubberies and other thick cover. This species is unrelated to the house sparrow, although of somewhat similar plumage. It is easily distinguished by its slender build and narrow bill; it is both an insect- and seed-eater, and obtains much of its food on the ground. Its powerful and musical song is heard throughout the spring and summer, beginning when the trees are still leafless; the common call-note is a sharp penetrating pipe.

The abundant little owl (*Athene noctua*), introduced at the beginning of the century, is now the only species of owl in the Christchurch city area, although the morepork (*Ninox novae-seelandiae*) was once an inhabitant of the suburbs and the Gardens. The native owl apparently disappeared gradually, perhaps giving up suitable nest sites to the introduced species.

The white-backed magpie (*Gymnorhina hypoleuca*) nests in Hagley Park: the cheerful song of this Australian bird, especially in the early morning, is a familiar feature of the Park and the Gardens. The Californian quail (*Lophortyx californica*) nests in such rougher ground as the Woodland. This handsome species is sometimes conspicuous amongst sparrows and black-birds as they forage at lunchtime for scraps. The male, with bobbing, jet-black crest feathers and dove-grey plumage, russet-barred beneath, is quite distinctive.

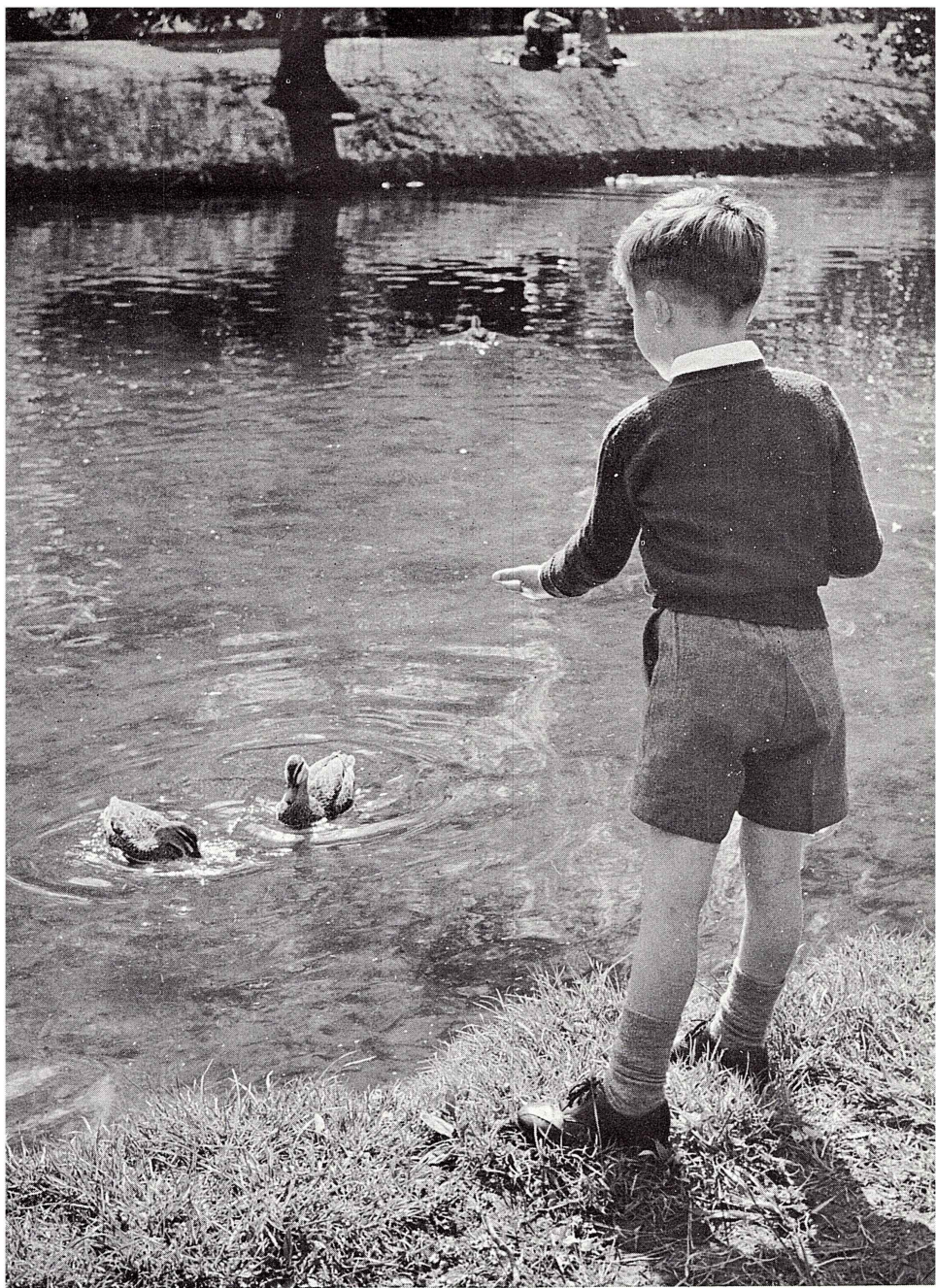
There is not space here to discuss in detail the origin of the Avon's numerous ducks, but nearly all show clear evidence of hybrid ancestry, the two stocks being the native grey duck (*Anas superciliosa*) and the introduced mallard (*Anas platy-*

*rhynchos*). The mallard drake with resplendent green head, white collar and chestnut breast adds a colourful note to the active flocks of waterfowl. It is not generally realized that at least one pair of shovelers (*Anas rhynchos*) breeds each year in or near the Gardens; this is a comparatively slender duck, with expanded bill-tip; the plumage of the male is distinguished by vivid contrasts of grey-blue and chestnut. On Victoria Lake the solitary white swan is joined periodically by one or more Canada geese (*Branta canadensis*)—a visitor from the breeding grounds in the back country or from the expanses of Lake Ellesmere.

The larger wading birds are represented by two kinds of heron, of which one, the rare white heron or kotuku (*Egretta alba*), now has a history of almost annual winter sojourns. New Zealand's only breeding colony, at Okarito in Westland, breaks up in autumn and young birds or adults in winter plumage become widely distributed throughout the country. When the bird is in non-breeding plumage the bill is bright yellow and the graceful, trailing dorsal plumes have been shed. In the past two years a white heron has settled down in the Gardens for the winter, spending most of its time in the small ponds or in Victoria Lake. Towards the time of its departure in September, close observation showed that the drooping nuptial plumes were appearing on the bird's shoulders, indicating that it would soon depart for the nesting ground. The white-faced heron (*Notophox novaehollandiae*) has also stayed at intervals, like the white heron enjoying the small fish in the ponds. This Australian species, a comparatively recent settler in New Zealand, is now widespread on inland waters and estuaries and nests commonly in pine rows and plantations. Its plumage is mainly slate-blue, the adult having a striking white face; the legs are greenish-yellow.

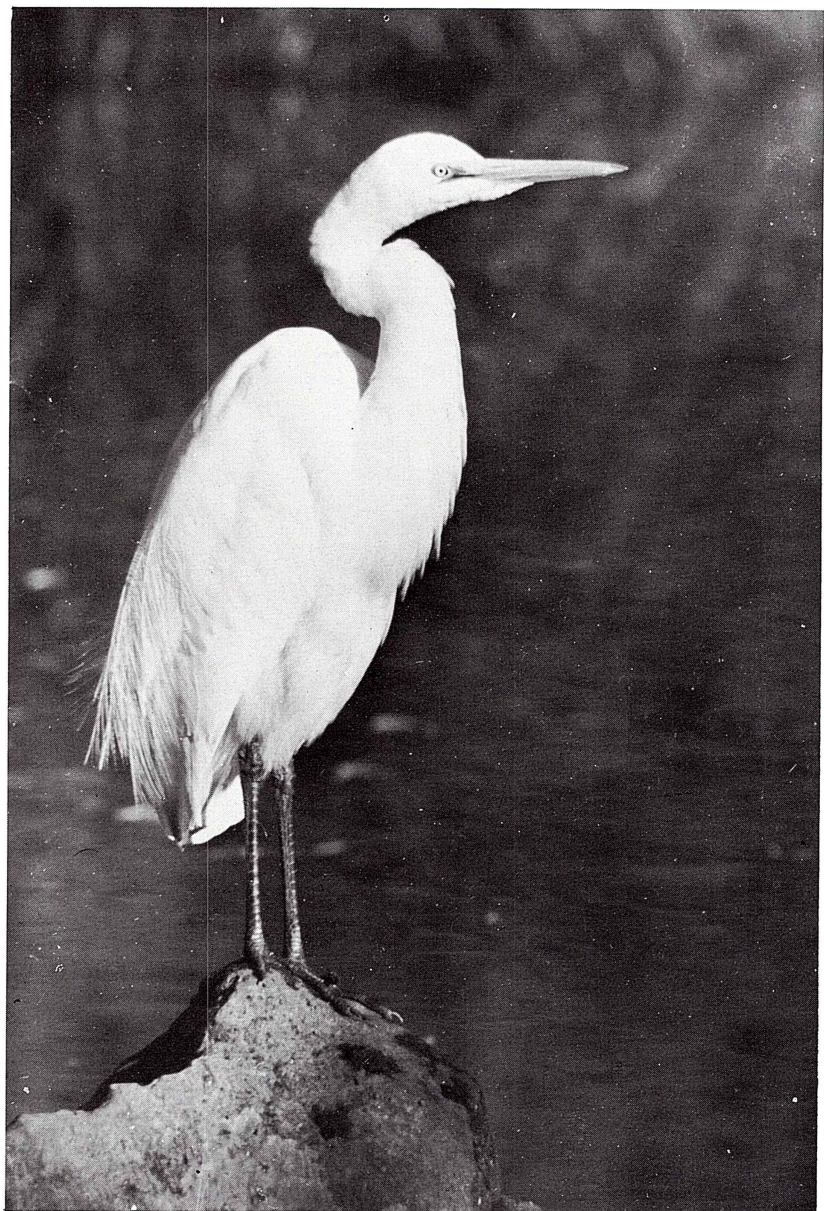
Unfortunately the Gardens do not provide a suitable environment for the species once most characteristic of this area, one of the most colourful of waterfowl, the pukeko (*Porphyrio melanotus*). It is the city's heraldic bird and must have inhabited all swampy backwaters but comes no closer nowadays





Feeding the ducks, a ceremony that all children enjoy.





The white heron. One of these rare birds usually comes to the Gardens every winter.

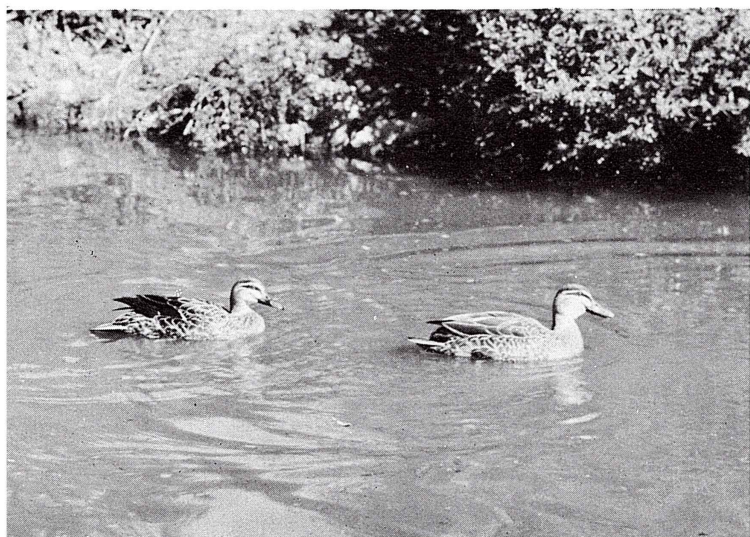




The white faced heron is also an occasional visitor.



The dainty little silvereye feeds on kowhai nectar.

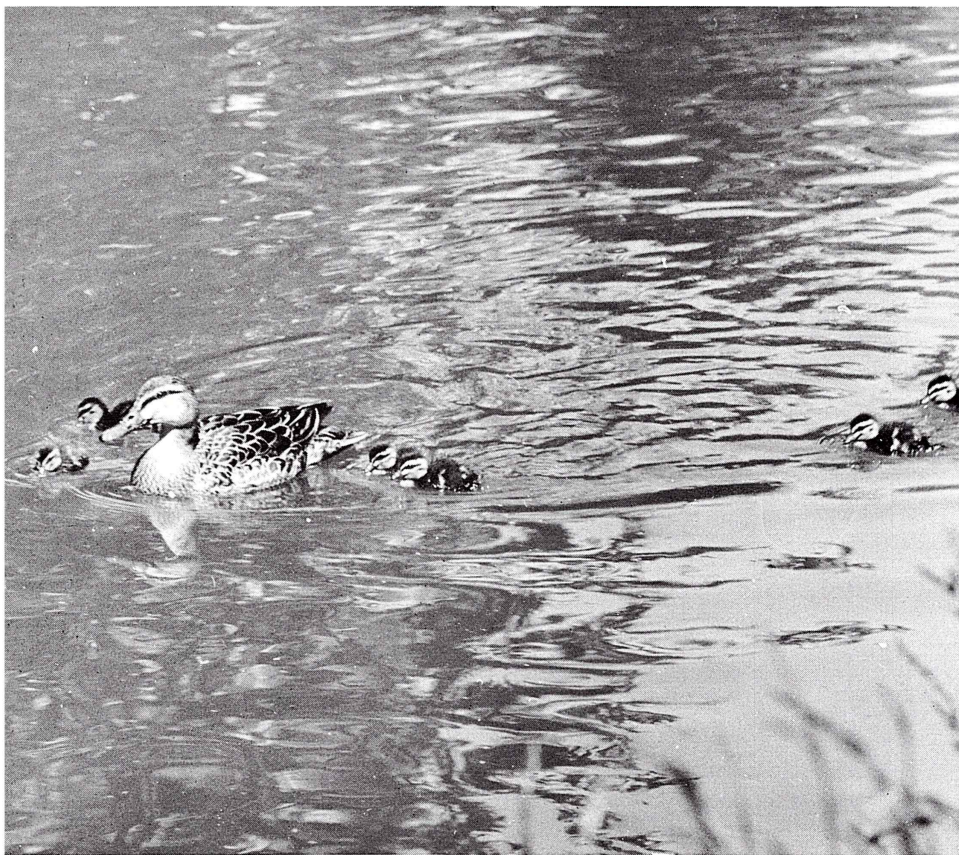


The ducks regard the Avon as their own.





A song thrush on the nest, one of the many introduced birds that are now part of the New Zealand landscape.



In convoy: a common sight in spring on the waters of the Gardens.





The beautiful white heron, or kotuku, on one of the ponds by the Rock Garden.

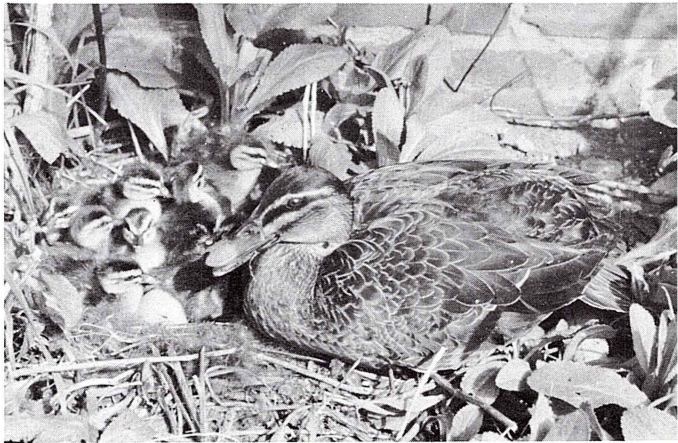




Beside the lake in the New Zealand section. The small signpost says 'No Fishing'.



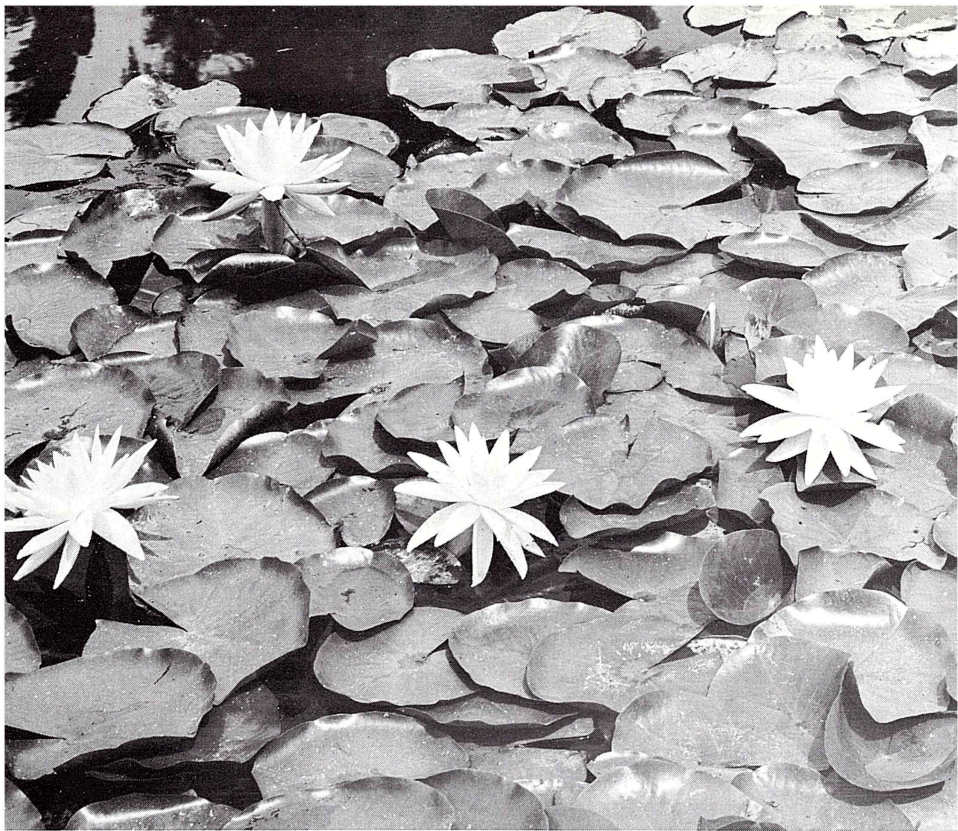
The Gardens provide innumerable nesting places.



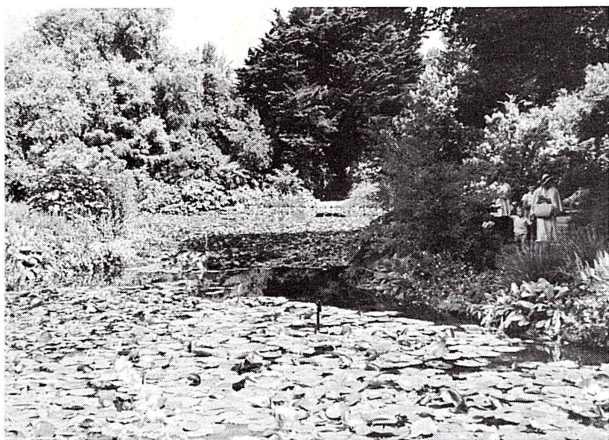
The Avon, once a weed-choked stream, has been transformed into one of the most beautiful features of the Gardens.







During the summer waterlilies (*Nymphaea* 'Sunrise') flower in profusion.



Part of the Bog Garden in high summer.





A clump of the huge rhubarb-like *Gunnera manicata*, one of the most magnificent of waterside plants.



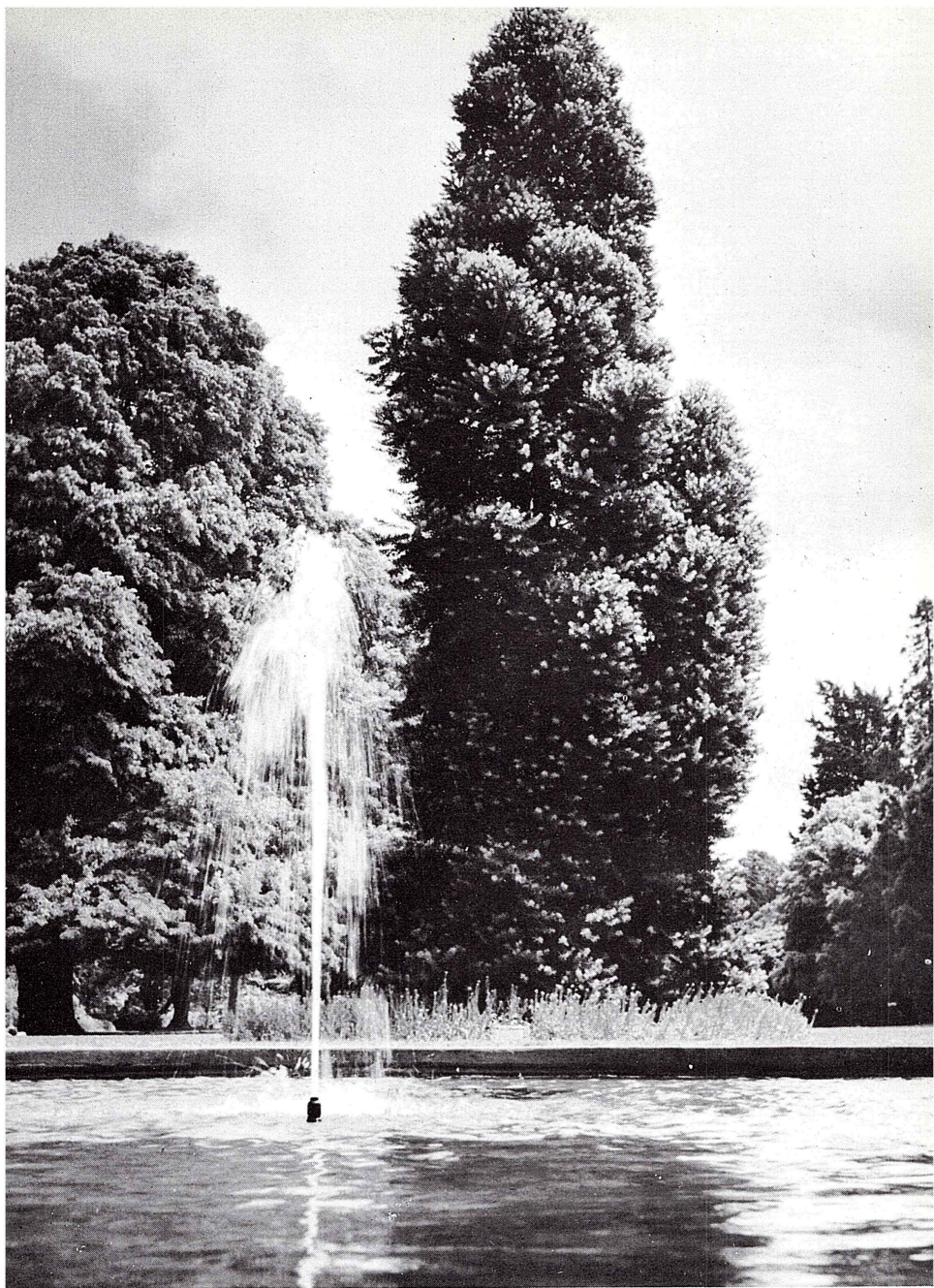


Moisture-loving plants thrive by the water's edge. A scene by the Rock Garden.



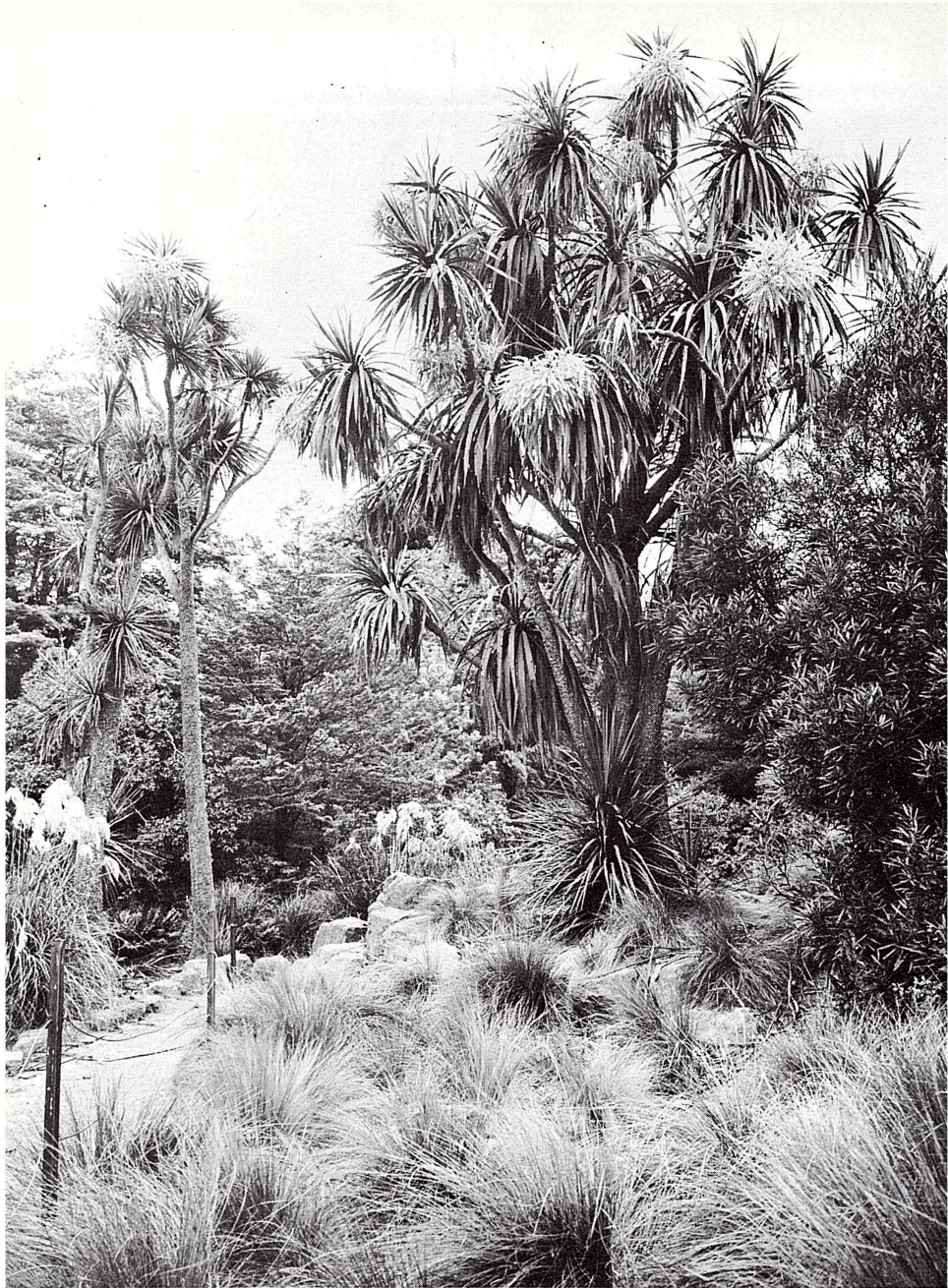
A cool spot on a hot day.





On the Archery Lawn. The fine kauri (*Agathis australis*) on the right was planted in 1920 by the then Prince of Wales.





Cabbage trees in flower in the New Zealand section where a patch of typical native 'bush' has been created.



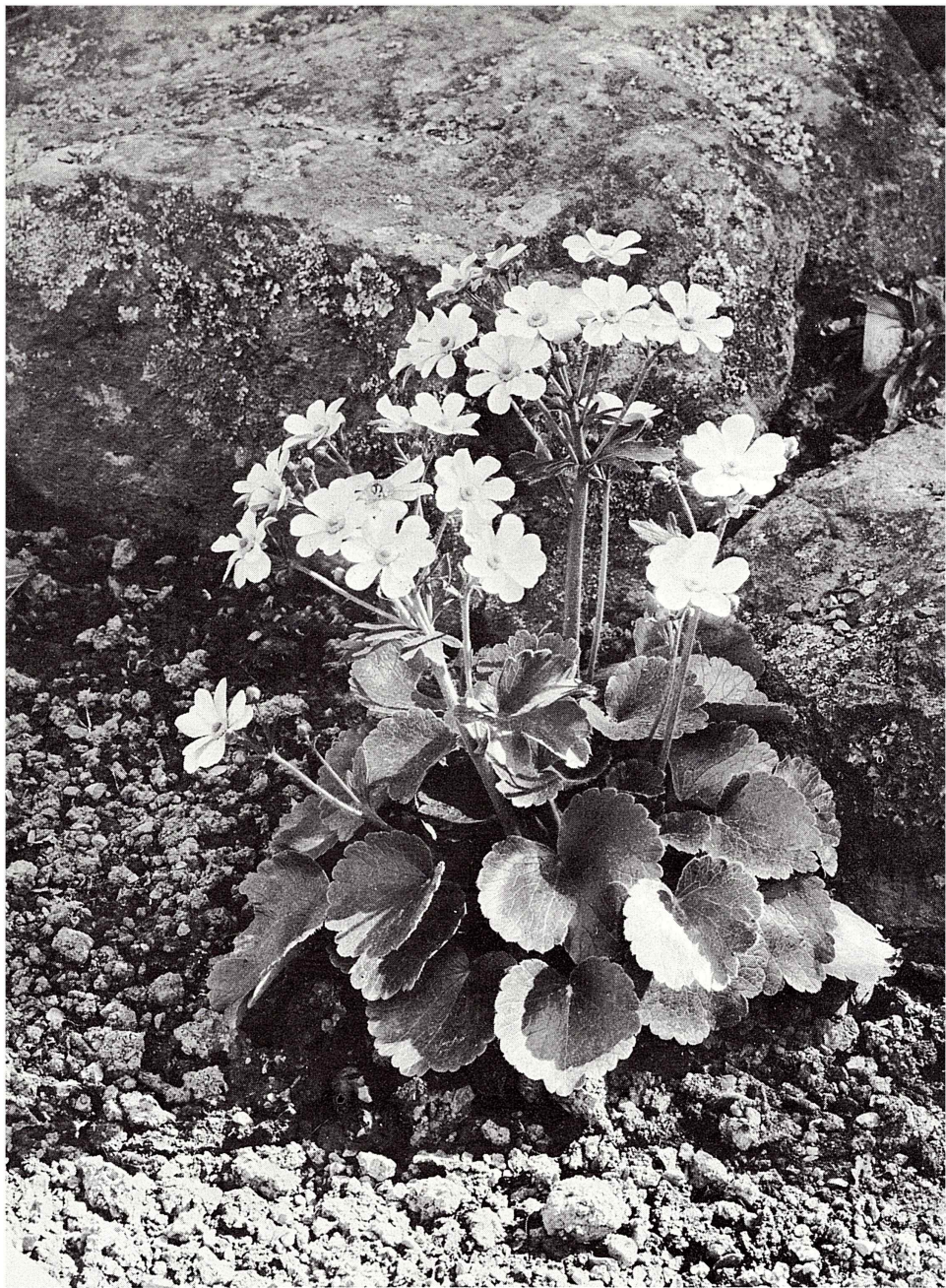


The beautiful *Clematis paniculata*, or puawhananga, flaunts its white flowers from the tops of several trees.

The wheki (*Dicksonia squarrosa*), one of the many attractive tree-ferns in the New Zealand section.







A specimen of the Kaikoura buttercup (*Ranunculus lobulatus*)  
in the Cockayne Garden.



than the outer suburbs and especially the lower reaches of the Avon and Heathcote rivers.

Shags are seen occasionally in the Gardens, balancing on an overhanging gum or willow branch, or emerging from a dive. This is the white-throated shag (*Phalacrocorax melanoleucos*), a common species on inland waters and estuaries.

The two coastal gulls—the black-backed gull (*Larus dominicanus*) and red-billed gull (*Larus novaehollandiae*)—come inland to the city regularly. The crowds of small gulls quarrelling over scraps in Christchurch, as in all settled districts of the eastern South Island, comprise both the red-billed and the very similar black-billed gull (*Larus bulleri*). The breeding colonies of the latter are situated inland, some of the largest being on Canterbury's riverbeds; after the nesting season the birds come to coastal areas. The adults of these two species are alike in having grey and white plumage. Distinguishing features of the black-billed gull are the comparatively slender jet-black bill and the greater extent of white on the tip of the wing seen in flight. The colour of the legs may be confused, as the legs of the black-billed gull vary from black to coral-red. Young of both red-billed and black-billed gulls are numerous in autumn and winter, and at this stage the two species are much alike, both having dark brown eyes, a brown or pinkish bill and dull brown feet.

## *New Zealand Plants*

ALTHOUGH the Gardens contain such a large collection of exotic plants, New Zealand flora has not been neglected. Since the beginning the New Zealand plant section has been an important feature of the establishment. Dr Leonard Cockayne, a world-famous botanist and authority on New Zealand plants, once wrote of the New Zealand section in the Gardens that the function of such a feature was 'to form a living museum of botanic material which students could consult; to be a pleasing adjunct to the Gardens; to show that native plants could be cultivated and were equal to expensive exotics; and finally to supply seeds for exchange purposes with horticultural establishments abroad.' He added, 'And right well has it served those purposes!' Today these purposes are still being fulfilled; plant material is supplied to the University and other establishments, and the collection of seeds for exchange with overseas gardens is still an important activity.

The original New Zealand plant section was established about 1875 in an area previously used as a nursery and today occupied by the camellia collection and the adjacent shrub borders. It covered two acres and some of the original trees planted in the area remain, notably the kowhais which must rank among the most beautiful flowering trees in the world.

The 'old' native section, as it came to be known, remained until Mr James Young planted what became known as the 'new' native section. This is the area between the bog garden and Beswick's Walk which today represents a typical piece of New Zealand bush. In 1936 the section was extended on the



southern side of the lake and in 1937 the Cockayne Memorial Garden was established. This garden perpetuates the memory of one of New Zealand's greatest botanists. The garden was laid out in two sections embracing an alpine garden for the cultivation of mountain flora and a series of shrub beds and borders.

In 1960-1, the alpine section of the Cockayne Memorial Garden was completely reconstructed and enlarged. At the same time the design and character of the shrub beds was altered to make this area more interesting.

For many people the 'bush' area with its shady pathways is one of the most fascinating parts of the Gardens. During warm weather it is probably the coolest and most refreshing place in Christchurch. Here plants from all parts of the country—the kauri forests of the north, the lowland swamp forests and upland beech forests—are seen in a natural setting.

Large specimens of the black beech (*Nothofagus solandri*) and the red beech (*N. fusca*) are the principal shade trees, also some almost equally-large ribbonwoods (*Plagianthus betulinus*) and the somewhat smaller lacebarks or houhere (*Hoheria populnea*). These last two trees are variously known as ribbonwood or lacebark because of the lacy nature of their inner bast fibres. *Hoheria populnea* is one of New Zealand's finest flowering trees and in summer clothes itself with masses of pure white flowers somewhat resembling those of a *Philadelphus*. The broadleaf (*Griselinia littoralis*) is represented by a few large specimens which have the typical gnarled and spreading branches of this type. Two specimens of the famous kauri are planted in this section and while they regularly produce cones none has yet contained viable seed. It takes approximately forty years before the kauri produces the male pollen-bearing flowers to pollinate the female flowers or cones. At the time of writing the Prince of Wales kauri on the Archery Lawn, planted in 1920, has just produced its first pollen cones.

Of the other forest trees, the rimu (*Dacrydium cupressinum*) kahikatea or white pine (*Podocarpus dacrydioides*), miro (*P. ferrugineus*) and matai (*P. spicatus*) are all represented by

comparatively young specimens. The rimu is one of the most beautiful of conifers and young plants with their long weeping branchlets make very handsome trees.

An interesting and handsome conifer is the tanekaha or celery-leaved pine, *Phyllocladus trichomanoides*, the bark of which yields a red dye formerly used by the Maoris. Except for the New Zealand species and one in Tahiti, all of the hundred-odd species of *Fuchsia* are found on the American continents. The New Zealand tree *Fuchsia* (*F. excorticata*) or kotukutuku grows on the southern side of the bush area and in the early spring the first green and purple flowers are produced on bare branches. The flowers are relatively inconspicuous until seen close-up and then their beauty is revealed. Another common bush tree which is apt to be passed by is the wineberry or mako mako (*Aristotelia serrata*), which in late spring is often covered with masses of small rosy-coloured flowers.

The five-finger (*Neopanax arboreum*) is scattered throughout this section and some fine specimens are growing. It is such a common tree of the New Zealand bush that few people stop to consider the attractive umbels of dark purple fruits which adorn it during the spring and summer. The ripe fruits of this tree are much loved by the birds which gather in the trees in great numbers. *Myrsine salicina* or toro is a tree of northern and western forests but it is quite at home here, its long narrow leaves shining brightly in the sunlight. Among the many other trees grown in this area are the karaka (*Corynocarpus laevigatus*), black maire (*Gymnelaea cunninghamii*), putaputaweta (*Carpodetus serratus*), ngaio (*Myoporum laetum*) and *Schefflera digitata*.

A feature of the New Zealand flora is the large number of species of shrub-daisies, particularly of the genera *Olearia* and *Senecio*, species of which may be found growing in all situations. *Senecio greyii*, *S. perdicoides*, *S. elaeagnifolius* and *S. monroi*, with their various hybrids, are conspicuous throughout the year, either for their handsome foliage or bright yellow or white flowers. The genus *Olearia*, containing some thirty-two



species, is very diverse and contains a number of highly ornamental species. Who, for example, would associate the large-leaved *Olearia avicenniaefolia* with the twiggy, minute-leaved *O. virgata*; the first has conspicuous white flowers while the other's are relatively inconspicuous and of a nondescript white colour. But one feature they and most other species of *Olearia* have in common is a sweet perfume. Among other more noticeable species are *Olearia traversii*, *O. nummularifolia*, and *O. x oleifolia*.

The large scrambling mass of *Rubus squarrosus* is more curious than beautiful although in the sunlight its bright yellow prickles have a certain attraction. With this species the leaves are reduced to midribs so that the whole plant presents the appearance of a tangle of green stems covered with bright yellow, hooked prickles. In the spring the clematis or pua-whananga (*Clematis paniculata*) flaunts its white flowers from the tops of several trees while closer to the ground the greenish-yellow flowers of the leafless clematis (*C. afoliata*) are produced on rush-like stems.

Although the great merit of most New Zealand shrubs lies in their ornamental foliage, there are some which can take the foremost place in most gardens. One of the best-known is the kaka-beak (*Clianthus puniceus*) which has pendant racemes of bright scarlet flowers. The Marlborough rock daisy, with its thick leathery leaves and drumstick-like flower-heads, is ideal in sunny situations as are the various New Zealand brooms. The endemic genera of *Carmichaelia*, *Notospartium* and *Chordospartium* all contain some beautiful shrubs, especially the latter two. *Chordospartium* is a monotypic genus confined to a restricted area in Marlborough Province. Popularly known as the weeping broom, *C. stevensonii* has a very distinct habit, the main stem and branches rising erect while the long leafless branchlets hang down so that it has the appearance of a small weeping-willow. The flowers of a pale lavender-pink are produced in profusion. The species of pink broom (*Notospartium*) have a semi-pendulous habit and when in flower are very beautiful. A well-grown bush will cover itself with flowers of pink or mallow purple in colour.

A wide variety of other shrubs is grown in the Gardens, among them specimens of *Cassinia*, *Dracophyllum*, *Brachyglottis*, *Corokia*, *Pittosporum*, *Hymenanthera* and *Coprosma*. The coprosmas are possibly unique as berrying shrubs for within the genus it is possible to find species with berries of almost every colour, from orange through red to pink, black, indigo, yellow, white and blue. This is another group which exhibits great variety of habit and form. Of the ninety-odd species about half are found in New Zealand.

The largest genus of plants in New Zealand is *Hebe*, or veronica as many of the plants are still popularly known. With some seventy-nine species it presents the botanist with a bewildering variety. The best-known species is the common koromiko (*H. salicifolia*) which commences flowering in the new year and continues for two or three months. Other species like *H. odora*, *H. traversii* or *H. decumbens* are grown as much for their habit and foliage as for the flowers while the anomalous whipcord hebes are grown purely for their form. The whipcord species such as *Hebe salicornioides*, *H. armstrongii* and *H. lycopodioides* are most unusual and characteristic plants. When not in flower they may easily be mistaken for dwarf species of conifers; with one, *H. cupressoides*, so complete is the deception that when it was first discovered it was thought to be a species of conifer.

No piece of New Zealand bush would be complete without ferns. New Zealand is famed for its tree-ferns and although the dry east coast climate does not favour their growth, they grow very well under the shelter of the large trees in the 'bush'. The two most common species grown are the wheki (*Dicksonia squarrosa*) and the thick trunked wheki-ponga (*D. fibrosa*), both of which are hardier and will withstand more wind than other kinds. A few young specimens of the silver tree-fern (*Cyathea dealbata*) or ponga (not punga as usually corrupted by Europeans) together with the whe (*C. smithii*) are quite conspicuous. The latter is unique because it ranges further south than any other species, a few plants being found on the Auckland Islands far south of New Zealand. The



prostrate *Cyathea colensoi* is an anomaly amongst the tree-ferns for its trunk rarely rises into the air but grows flat along the ground and just climbs slightly at the tip.

The common polypody (*Phymatodes diversifolium*) forms extensive carpets under the trees, its bright green fronds always looking fresh and attractive. It provides a fine nesting-place for ducks from the nearby lakes. The prickly shield-fern (*Polystichum vestitum*) and the black shield-fern (*P. richardii*) are two of the hardier ferns which will withstand considerable exposure and can be seen growing in the less congenial parts of the 'bush'. Some of the other ferns in this area are the cut-leaf bracken (*Histiopteris incisa*), *Blechnum durum*, glossy spleenwort (*Asplenium lucidum*), hen-and-chicken fern (*A. bulbiferum*) and *Hypolepis millefolium*, while tucked away at the base of a tree where it is hardly noticed is one of the carpet ferns, *Mecodium demissum*.

The lake is one of the most beautiful parts of the New Zealand section and, where the beech trees, karamu (*Coprosma robusta*) and koromiko (*Hebe salicifolia*) hang low over the water on the southern side, it gives the impression of a quiet backwater on a Westland river. The elegant toe toe (*Arundo conspicua*) may be seen here, its drooping plumes reflected in the waters, and nearby is a group of typical swamp plants. Growing out into the water are niggerheads (*Carex secta*), *Phormium*, a large clump of raupo (*Typha angustifolia*) and on some of the clumps of *Carex* is the blue-berried *Coprosma propinqua*.

The present-day alpine garden is designed in an attractive manner, with provision for growing all types of alpine plants. Shingle screes accommodate the unique scree plants of the Southern Alps, there is also an alpine bog and a section of limestone rock to illustrate the types of plants which inhabit such areas.

Although New Zealand has many interesting and attractive shrubs, it is among the alpine plants that the gems of the flora are to be found. While the vivid blues, reds and pinks of exotic alpine plants may be lacking, the New Zealand mountain wildflowers vie in beauty with those of other regions. A

better idea of the richness of the alpine plants is gained from the fact that of New Zealand's total flora, more than nine hundred may be considered alpine by nature, and of these more than five hundred are purely alpine and are never found at lower levels. Because of its higher mountains and cooler temperatures most of these plants are confined to the South Island. Approximately ninety-five per cent of the species are endemic to New Zealand, which is a very high rate of endemism.

Characteristic alpine plants from all parts of New Zealand are grown in the alpine garden. While the great majority of them have either white or yellow flowers they are not entirely lacking in colour and the variety of foliage and form is amazing. The mountain daisies (*Celmisia*) of which there are fifty-eight known species, are among the most conspicuous groups. The great silvery rosettes of the larger species, such as *C. coriacea*, *C. monroi*, *C. major*, *C. spectabilis* and *C. holosericea*, are outstanding. Of the smaller species quite a number are grown, including *Celmisia sessiliflora* which forms broad silvery mats only an inch or so in height, and *C. laricifolia* which is even smaller and which has small rosettes of black-green leaves. The viscid *C. angustifolia* is perfectly at home in the alpine garden and every spring covers itself with flowers, while *C. discolor* and *C. incana* thrive almost as well. One of the most beautiful is the large green-leaved *C. mackau* which inhabits only the hills in the vicinity of Akaroa. The large white flowers have the unusual character of turning a beautiful pink as they age.

With more than forty species of *Ranunculi*, New Zealand can lay claim to some beautiful buttercups. *Ranunculus lyallii*, the mountain buttercup, is the finest of all and while it does not attain in Christchurch the dimensions it does in its natural habitat, it can be grown satisfactorily. Almost equally as large is *R. insignis* which is more amenable to cultivation, and its bright yellow flowers make it a very handsome plant. The Kaikoura buttercup (*R. lobulatus*) is another attractive yellow-flowered species, and of the smaller types *R. enysii*, *R. monroi* and *R. clivalis* are well represented.



One characteristic group of plants which deserves more attention from horticulturists is the yucca-like spaniard or spear-grass. The genus *Aciphylla* contains close on forty species which range from the giant *A. scott-thomsonii*, which often grows nine feet or more in height, to the diminutive *A. hectori*, only a few inches high. The larger species, such as *A. squarrosa*, *A. aurea* and *A. colensoi*, make handsome and unusual plants in the alpine garden, particularly when they produce their tall spiny flowerspikes; the small ones, such as *A. monroi*, *A. similis*, *A. pinnatifida* and *A. spedenii*, are none-the-less attractive.

Most of the common alpine plants as well as many rare ones are grown. In the spring the so-called Maori onion (*Chrysobactron hookeri*) flowers profusely, its spikes of golden-yellow flowers being very like small red-hot poker. The small violets (*Viola cunninghamii* and *V. filicaulis*) also flower very early and, although strictly speaking not an alpine, the beautiful blue-flowered Chatham Island forget-me-not (*Myosotidium hortensia*) follows soon afterwards. Other alpine plants which are conspicuous in this garden are *Helichrysum bellidioides*, *Ourisia macrophylla*, var. *lactea*, *Hebe hulkeana*, *H. lavaudiana*, *H. raoulii*, *Parahebe lyallii*, *Angelica montana* and *Myosotis eximea*.

The world-famous vegetable sheep (*Raoulia eximea*) is unfortunately not readily amenable to cultivation in Christchurch. However, the mat-like species of *Raoulia* which inhabit riverbeds and other stony places are quite easy to grow. The silvery mats of *R. hookeri* and *R. australis* contrast exceptionally well with the greens of *R. glabra* or *R. haastii*. This latter species is one of the few New Zealand plants which assume a distinct seasonal colouration; during the winter it changes to a beautiful chestnut-brown.

In addition to those which have attractive flowers there are quite a few plants which are grown either for their botanical interest or for their unusual form. The shrubby everlastings (*Helichrysum selago* and *H. microphyllum*) have more the appearance of a whipcord *Hebe* than a *Helichrysum* and the well-named *H. coralloides* is a true plant oddity. Various

species of *Acaena* are grown although some are too invasive for the alpine garden. Some of the other genera represented are *Colobanthus*, *Poa*, *Danthonia*, *Gunnera* and *Epilobium*.

The main purpose of the Cockayne Memorial Garden is to demonstrate to the public the horticultural value of some of our New Zealand plants. Two well-grown specimens of the kawaka (*Libocedrus plumosa*) and the pahautea or mountain cedar (*L. bidwillii*) show that these two conifers for beauty of form will rival some of the commonly seen exotic species.

In the borders surrounding the garden are attractive species and varieties of native trees and shrubs. Conspicuous amongst these are the purple ake-ake (*Dodonaea viscosa* 'Purpurea'), variegated karo (*Pittosporum crassifolium* 'Variegatum'), *Corokia x cheesemanii*, the weeping broom (*Chordospartium stevensonii*), golden totara (*Podocarpus totara* 'Aurea') and forms of the kowhai, including the large leaved form of *Sophora tetraptera* and a fine leaved type, *S. microphylla* var. *longicarinata*. Deserving of special mention is a well-coloured form of the purple-leaved shrub, *Pseudopanax discolor*. It is a handsome specimen and throughout the year few shrubs can outrival its distinctive foliage.

Plant breeders have recently improved one of the most common of all New Zealand plants, resulting in some outstanding varieties of the manuka, *Leptospermum*. A number of these are now grown in the Cockayne Memorial Garden and for quite a long period they add a bright splash of colour to this area as the different varieties come into flower. The progenitor of many of these garden forms, *Leptospermum scoparium* 'Nichollsii' was originally found in sandy scrublands near Christchurch and the type is still grown in the Gardens along with the newer forms.

French and English gardeners are most appreciative of the garden possibilities of the hebes and some outstanding hybrids have been raised in those countries. In the Cockayne Memorial Garden a section has been devoted to these cultivars, the forms of which are colourful throughout the year either with their variegated ornamental foliage or with their variously coloured flowers. Grown also are two beautiful hybrids which



originated in the Gardens. One is a trailing purple-blue flowered hybrid known as *Hebe* 'Youngii' which was named after the curator, James Young, and the other a beautiful lilac pink flowered shrub called *H.* 'Hagleyensis'.

Distinctive New Zealand plants such as the cabbage-tree, flax, lancewood, kowhai and tree-ferns have been planted in various parts of the Gardens in association with exotics. The cabbage-tree (*Cordyline australis*) or ti of the Maori is an ideal plant for providing a special beauty of form which is generally lacking in the temperate vegetation. Equally characteristic of this country is the New Zealand flax (*Phormium tenax*). It is another plant which is admirable for landscape planting but has been largely neglected by local gardeners. Some fine variegated and other foliage forms exist and it is possible that in the hands of an enterprising plant breeder even better forms could be produced.

Many New Zealand plants have the peculiar characteristic of bearing when young foliage distinct from that of the adult form, and the lancewood (*Pseudopanax crassifolium*) is one of the best-known examples of this. As a juvenile the lancewood has a tall thin stem clothed with long narrow leaves but as it reaches maturity the leaves become shorter and broader and the tree assumes a bushy top. The rare *P. ferox* has more distinctive foliage. Both species are excellent for special effect planting. A generous number of kowhai trees has been planted. They demonstrate to visitors that this is one of the most beautiful of New Zealand's flowering trees and certainly deserves to be regarded as our national flower.

## *The Glasshouses*

THE story of the glasshouses in the Gardens begins in 1877 when the Horticultural Society applied for permission to erect a conservatory in the Domain. Permission was granted but the scheme appears to have lapsed because of differences over the siting of the proposed building. Apart from erecting some propagating houses nothing further was done until 1914 when Mrs A. Q. Townend bequeathed a large conservatory and orchid house. This originally stood in the grounds of Holly Lea and when re-erected in the Gardens was named Townend House in honour of its donor. It stood where the present Townend House now is and for many years it contained year-round displays of colourful glasshouse plants. The house was eventually replaced by the present structure.

The glasshouses are an important feature of the Gardens; they exercise fascination for young and old, their popularity is shown by the large number of people who visit them throughout the year. Apart from displaying beautiful flowers and foliage, they also serve an educational purpose. Tropical plants of economic importance are shown and informative exhibits of a special plant or groups of plants, which are staged from time to time, do much to stimulate public interest.

Some fifteen hundred different glasshouse plants are grown although, of course, not all of these are shown at the one time. Probably no more than two-thirds are on display, the rest being kept in the propagating houses for rejuvenation, propagation or, in the case of orchids and similar plants, until they produce their flowers.



## THE GLASSHOUSES

### THE CUNINGHAM HOUSE

The Cuningham House, opened in 1923, was built as the result of a bequest by Mr G. A. C. Cuningham, who was a great admirer of the Gardens. It is a large structure measuring approximately one hundred feet by fifty feet and forty feet in height and contains a gallery reached by easy staircase round the whole circumference. It is the most interesting of the glass-houses and the one in which visitors spend the greatest amount of time. A very extensive collection of tropical plants is displayed. Space will permit mention of but a few. While some plants remain on permanent display throughout the year there is a constant change of subjects so that there is always something new to be seen.

Dominating the house are the large specimen palms, *Ficus* and other tropical plants growing in the centre bed. Tall specimens of the thatch-leaf palm (*Howea forsteriana*) more than twenty-five feet high, because of their large bunches of seeds, are often mistaken for date palms. Several fine specimens of the elegant *Phoenix roebelinii*, which are now about twelve feet high, occupy prominent positions in the bed. The lady palm (*Rhapis excelsa*) is a Chinese species which grows in clumps, the thin stems being covered for most of their length with fibrous leaf-sheaths. New Zealand is not neglected and a specimen of the nikau palm (*Rhopalostylis sapida*) is included. Although the sheltered bays of nearby Banks Peninsula are the southernmost limit of this palm, the frosty climate of the plains will not allow it to be grown outside in Christchurch. Also in the Cuningham House, and often mistaken for the nikau palm, is *Rhopalostylis baueri* from Norfolk Island.

Several cycads are grown. These ancient plants, somewhat related to the conifers, bear large cone-like flowering bodies. The foremost species are *Cycas revoluta*, which is sometimes known as the sago palm, and the Australian *Macrozamia peroffskyana*. The screw-pine (*Pandanus*) is a useful economic plant in many tropical countries, the foliage being used for many purposes. The Madagascar screw-pine (*P. utilis*) with red-margined serrated leaves grows in the bed (or 'jungle', as it is known to the staff).

The banana family (*Musaceae*) is well represented and probably more visitors, particularly children, wish to see the banana than those seeking any other plant. Four species and varieties of banana are grown, including the dwarf Chinese banana *Musa acuminata* 'Dwarf Cavendish') and the common plantain. The diminutive *M. velutina* from Assam only grows three-to-four feet high and has small red inedible fruits covered with a soft velvety pubescence. One of the best of the edible bananas is *Musa acuminata* 'Gros Michel' and a large specimen regularly bears and ripens fruit; generally the bunches are large and on one occasion more than two hundred and fifty bananas were produced.

Also in the banana family is *Strelitzia nicolai*. The bird-of-paradise flower (*S. reginae*) is well-known but *S. nicolai*, which towers twenty-five feet into the air, is the giant of the genus. Its huge leaves measure six by two feet while the blue-and-white flowers, which are just like its more beautiful congener in shape, are about twenty inches long. Looking somewhat similar to this species is the travellers' tree (*Ravenala madagascariensis*) which is famous for its unusual habit of growth: the water which is caught in the leaf sheaths affords a refreshing drink.

One large tropical family which is well represented is the *Araceae* and more than seventy-five of this family are grown in the collections. The well-named *Monstera deliciosa* or fruit salad plant is quite at home climbing an old palm stump and the curious cone-like fruit can generally be seen on the plant at any time of the year. The genus *Philodendron* is a large one and contains many fine foliage plants. Many of the species are climbers, clinging on to the trees by means of aerial roots, but a few are arborescent. The philodendrons come from tropical America where they form a conspicuous feature in the jungles, the leaves of some species being very large.

*Philodendron andreaum* from Colombia is one of the finest, its dark almost black-green leaves have a beautiful satin-like sheen and often attain a yard in length. Another species, *P. panduraeforme*, has, as the name suggests, leaves shaped like a fiddle while *P. micans* is like a diminutive *P. andreaum*. The



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arborescent species are represented mainly by *P. bipinnatifidum* and *P. selloum* both from Brazil. In time they form a thick trunk, sometimes propped up by aerial roots and topped with a crown of large leaves.

*Anthurium* is another tropical American genus of aroids. While some of the species are grown for their ornamental foliage others are valued for their unusual flowers. The tail flower (*A. andreanum*) has waxy flowers in shades of red, pink and white, and are so perfect that they almost look artificial. Even more curious is *A. scherzerianum* from Central America which has a bright orange-red spathe, the spadix being twisted like a pig's tail. *Anthurium crystallinum*, *A. magnificum* and *A. warocqueanum* are all species with handsome velvety-green leaves on which the midrib and principal veins are marked out in white or pale silver-green.

Of the other aroids growing in this house mention can be made of only a few. The varieties of 'dumb cane' (*Dieffenbachia*), although their ornamental foliage looks quite innocuous, are most poisonous. The common name of these plants was given because their juice, if swallowed, can deprive a person of speech for several hours or even days. The species of *Alocasia* all have ornamental foliage and mention must be made of *A. cuprea* which has a handsome metallic sheen on the leaves, and *A. sanderiana* which has wavy-margined leaves veined with white. Not so ornamental but more useful are the various types of taro (*Alocasia* and *Colocasia*) which are grown for food throughout the tropics.

The pineapple family (*Bromeliaceae*) is also well represented and throughout the year many beautiful and interesting plants belonging to this family are displayed. Bromeliads are natives of Central and South America and the West Indies. They are mainly epiphytical, although quite a number of species grow on the ground. The epiphytical ones perch on trees and rocks and have even been found growing on telegraph wires. Usually the leaves form a crown or cup in which water is stored to carry the plant over the dry season; the roots serve mainly to anchor the plant to its support. In the water contained within the crown of leaves, algae, small aquatic plants and insects grow

and breed. In some parts of Brazil the breeding of malarial mosquitoes in this water has caused a serious health problem.

The pineapple (*Ananas comosus*) is the most useful member of the family and at some time or other plants bearing fruit can be seen on one of the benches in the gallery. *Ananas comosus* 'Variegatus' is also grown. Looking more like a moss than a relative of the pineapple is *Tillandsia usneoides*, the Spanish moss. Only the minute greenish-coloured flowers give a clue to its identity. *Tillandsia lindeniana* is quite unlike its moss-like relative and bears sixteen-inch high sword-like spikes of beautiful blue flowers.

*Vriesia carinata* is a small species with curiously flattened spikes of intense scarlet and yellow, and *V. splendens* from British Guiana is most appropriately named the 'flaming sword'; it has handsome foliage banded with red-brown and a sword-like flower-spike of a bright red. Other genera of Bromeliads which are represented are *Aechmea*, *Billbergia*, *Neoregelia*, *Pitcairnia* and *Quesnelia*.

One of the most unusual is the *Nepenthes* or pitcher plant. The midrib of the leaf is prolonged as a tendril which is used to support the plant; on some leaves the tendril-like midrib becomes hollowed and expanded to form the 'pitchers' for which the plant is known. These pitchers are coloured green, brown and red and many are remarkably beautiful. The pitchers hold a fluid in which insects (and, with the larger species, occasional small animals) are drowned and slowly converted into a product that can be absorbed by the plant. The most common species displayed in Cuninghame House is *Nepenthes maxima*, a native of Borneo, the Celebes and New Guinea; although confined to a glasshouse it manages to trap quite a number of small insects.

There is seldom a time of the year when no orchids are displayed. Some flower for only a few days but others remain in bloom for several weeks. Most people imagine orchids as having large, peculiar-looking flowers of brilliant colouring but many are dull and insignificant. While most of those grown in the Gardens are attractive there are some which are grown simply for botanical purposes. While the various species of





Part of the diorama of cacti and succulents in the Garrick House.





Luxuriant tropical vegetation in the Cuningham House.





Part of the display of mimicry plants in the Garrick Cactus and Succulent House.

*Thunia marshalliana*, an uncommon and remarkably beautiful orchid.











Burmese orchid (*Dendrobium chrysotoxum*) in the Cunningham House.

2ft) Tuberous begonias  
the Townend House.





Baskets of begonias are featured in the Townend House during the summer.





A large specimen of *Musa acuminata* 'Gros Michel' regularly bears and ripens fruit. The bunches have produced as many as two hundred and fifty bananas.





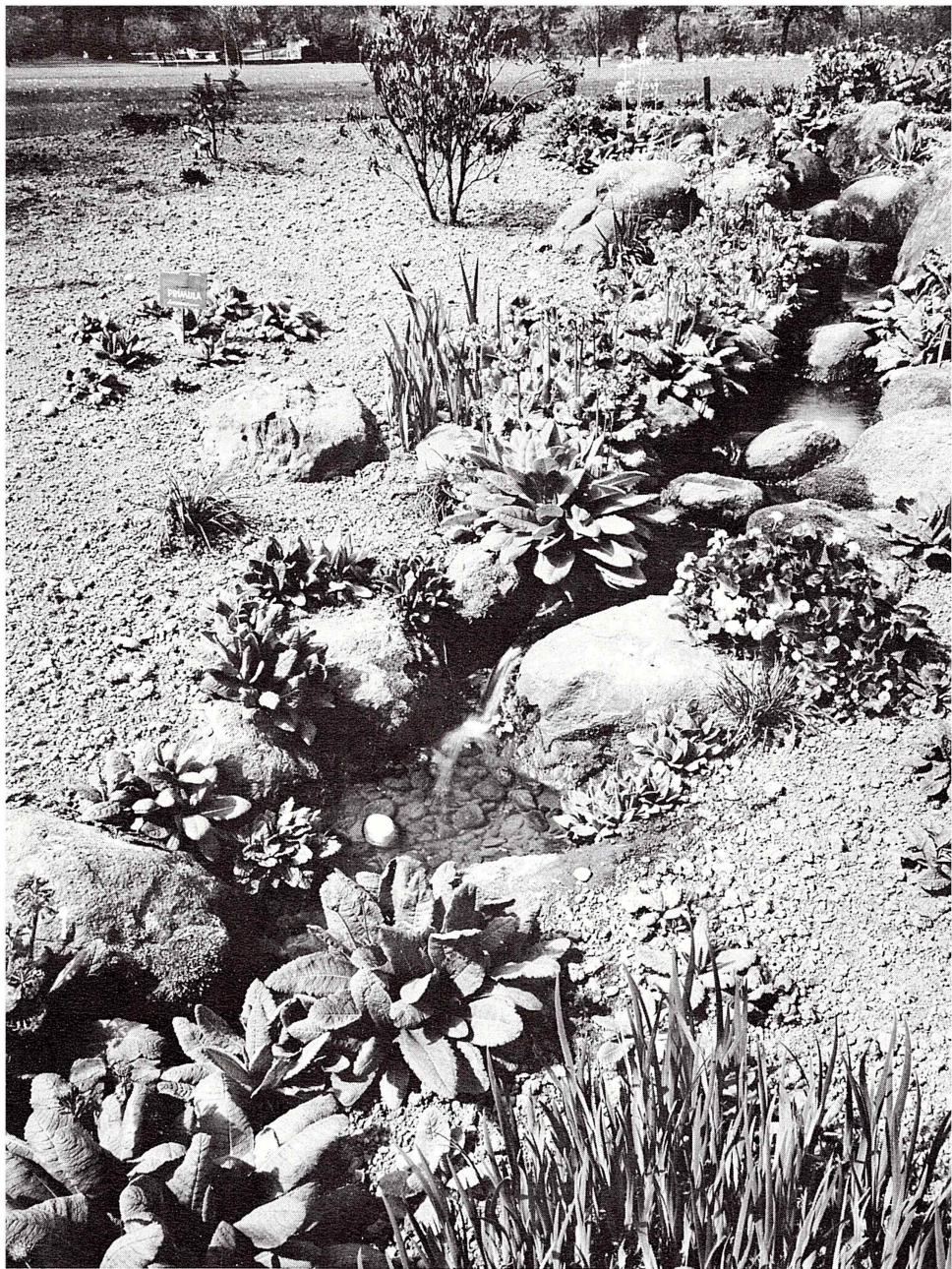
·The Herbaceous Border in mid-summer.





The Armstrong Lawn with its beds of zonal pelargoniums.





Part of the Primula Garden, formed in 1955, which is becoming an attractive garden feature.





In the Primula Garden, near the western end of the Murray-Aynsley Lawn.





The golden glow of autumn: maidenhair trees (*Ginkgo biloba*) shed their leaves on Beswick's Walk.





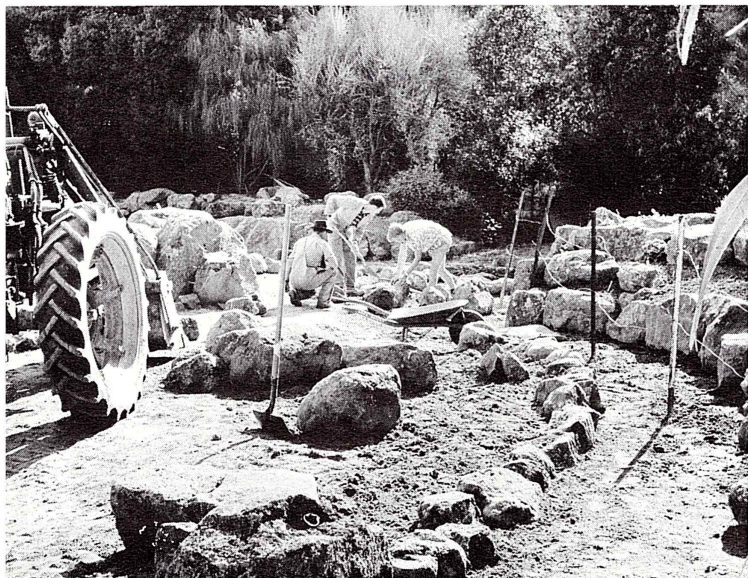
Canoeing through the Gardens on a Sunday afternoon.



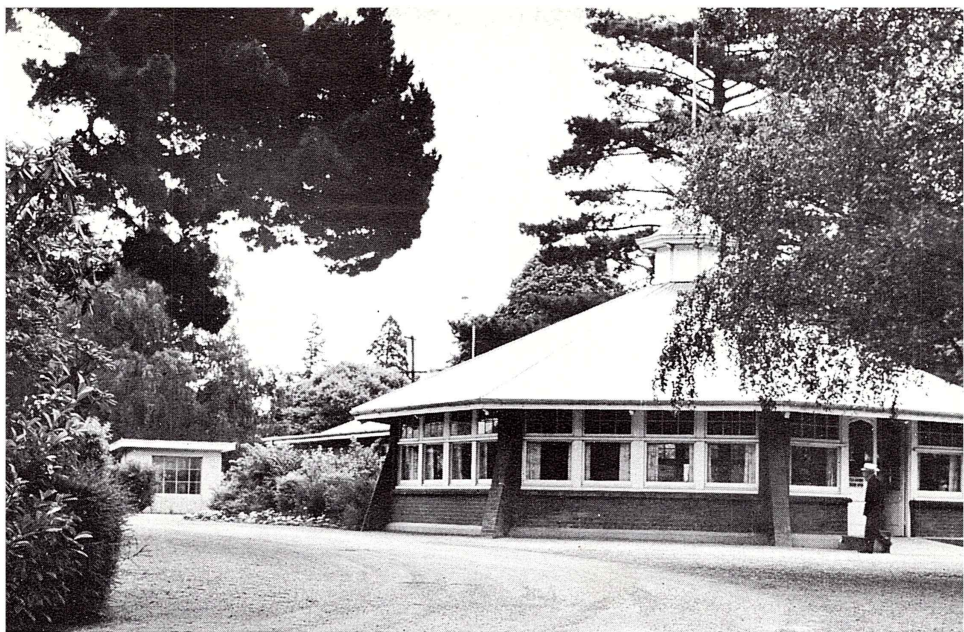


At every season of the year something of interest will be found in the Rock Garden on the northern side of the Harper Lawn.

The Cockayne Garden during reconstruction in 1961.







The tea kiosk, near the north bridge, is a popular meeting place.

Trees are probably the chief glory of the Gardens. Visitors from overseas are often astonished at their rapid growth.







Mallie overhanging in a beautiful setting near the west bridge over the Arvon



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*Dendrobium*, *Cattleya*, *Coelogyne* and *Phragmopedilum* produce masses of colourful flowers, none can compare with the starfish orchid (*Macrolepctrum sesquipedale*) for both beauty and interest. The starfish orchid comes from Madagascar and during the winter it produces waxy, six-pointed star-like, ivory-white flowers. Each flower is about six inches across but the most remarkable thing about them is the tail-like appendage, a foot or more long, which contains nectar. The flowers are pollinated by a moth and when this orchid was first discovered Charles Darwin predicted that in Madagascar a moth with a proboscis long enough to reach down to the nectar, would be found. Sure enough, some years later it was.

Downstairs, where conditions are shadier, the shade-loving plants are displayed and here may be seen the ferns and selaginellas. Of the ferns the most notable are the various maiden-hairs (*Adiantum*): *A. peruvianum* is one of the most handsome; the gold dust fern, (*Ceropteris chrysophylla*); *Blechnum gibbum* and other New Caledonian ferns; species and varieties of *Pteris* and also *Nephrolepis*. Selaginellas are feathery moss-like plants related to the ferns and some, such as (*Selaginella uncinata*), are remarkable for their metallic or iridescent tints.

Among the many plants in this house are representative collections of many tropical subjects such as croton (*Codiaeum*), *Acalypha*, *Peperomia*, *Begonia*, *Cordyline* and others. Mention must also be made of the giant stinging tree, *Laportea moroides*. This fearsome tree grows in tropical Australia and has leaves up to eight inches across, armed with innocent-looking stinging hairs. To add to the deception it has attractive mulberry-like fruit. The sting from this plant is very painful and may last for more than two weeks, consequently it is always kept in a wire-netting cage. Some members of the staff are able to testify to the virulence of the stinging hairs.

## THE TOWNEND HOUSE

The present Townend House, erected in 1955-6 on the site of the old structure, is rectangular in shape and measures thirty-two feet by sixty-four feet. It is linked by a covered passage-

way to the large Cuningham House, thus providing a convenient access from one house to the other and to the adjoining Garrick Cactus and Succulent House. The Townend House is essentially a conservatory wherein is grown a regular succession of popular greenhouse plants as well as those from the warmer temperature regions. To keep the house furnished with flowering plants throughout the year requires careful planning and only those familiar with this branch of horticulture will realize the amount of work involved. The hundreds of pot plants required have to be raised and grown to the flowering stage in the propagating houses.

In addition to the main displays of greenhouse plants, such as *Primula obconica*, *P. malacoides*, cinerarias, cyclamen, calceolarias, schizanthus, zonal and regal pelargoniums, tuberous begonias, fuchsias and chrysanthemums, which follow in regular sequence throughout the season, many other kinds of plants are exhibited. Gloxinias, streptocarpus, achimenes, and poinsettias provide interesting and colourful contributions. Other lesser-known plants that are exhibited from time to time are prominent members of the sage family (*Labiatae*) such as *Pycnostachys urticifolia* with bright blue flowers, *P. dawei* with flower heads of cobalt blue, and *Coleus thyrsoides* with tall spikes of pretty blue flowers. *Plectranthus behrii*, which has large spikes of pink flowers, is another member of this useful family.

Winter-flowering begonias, *Begonia x feastii*, *Kalanchoe blossfeldiana*, and *Smithiantha zebrina* also contribute to the ever-changing kaleidoscope of colour.

Not all orchids require tropical conditions and some do best in a cool or intermediate house. The widely grown varieties of *Cymbidium* are typical of such orchids and throughout the winter and spring these and several others are displayed as they come into flower. The common slipper orchid (*Paphiopedilum insigne*), which comes from Nepal to Assam, provides a good display every winter as does *Coelogyne cristata*, also from Nepal. *Dendrobium kingianum* is a small species from Queensland which has dainty one-inch flowers of a purplish colour.

At various times throughout the year a very pretty climbing



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plant (*Rhodochiton astrosanguineum*), known as purple bells, can be seen in flower. The purplish-red flowers soon fall but the large bell-shaped, purplish calyx remains on the plant for some time. Other climbing plants are *Passiflora antioquiensis*, *P.* 'Enysford Gem', *Hoya australis* and the endemic *Tecomathe speciosus*.

### GARRICK CACTUS AND SUCCULENT HOUSE

Next to the Townsend House is the Garrick Cactus and Succulent House, named after Mr M. Garrick who donated a large collection of these plants to the Gardens.

Cacti and succulents from most parts of the world are represented. While many are grown in pots, the feature of the house is the fine diorama in front of which the larger specimens are planted. This diorama, completed in 1958, is a good example of what can be achieved by modern display techniques. It has been designed so that the scene merges almost imperceptibly into the background, special attention being paid to the accuracy of dimension and colour to give a true representation of a desert scene. Special red volcanic rock and soil was brought from Banks Peninsula to make the foreground tone in with the diorama. To avoid overhead watering an underground irrigation system has been installed.

One of the most interesting displays is the exhibit of 'stone plants' or 'living stones', which exhibit remarkable adaptations for resisting the intense heat and light of their native regions. They are South African members of the *Mesembryanthemum* family, the main genera being *Lithops*, *Pleiospilos* and *Argyroderma*. They are arranged in a habitat group which is designed to show how these plants resemble stones. It is only when they flower that they are easily distinguished from their surroundings.

The African continent is rich in succulent plants and most of the characteristic genera of that country are represented. More than thirty species of the genus *Haworthia* and over forty species of *Crassula* are grown, including the highly specialized *C. barklyi*, *C. arta* and *C. mesembryanthemopsis*; *C. falcata*, with its glaucous leaves and large heads of scarlet flowers is

one of the most beautiful. Other genera which are well represented are *Aloe* and the succulent species of *Senecio* and *Kalanchoe*. With this latter genus the species range from the giant *Kalanchoe beharensis*, ten feet or more high, to the tiny *K. pumila*.

Although no cacti grow naturally in the African continent, their place is taken by the succulent species of *Euphorbia*, many species of which assume a cactus-like form. Some of the smaller species, such as *Euphorbia meloformis* and *E. obesa*, assume a globular shape while *E. bupleurifolia* forms a short thick trunk crowned with thin leaves, and the shrubby types, such as *E. horrida*, *E. lactea*, *E. trigona* and *E. coerulescens* with their angled and spiny stems, have more the appearance of cacti than members of the Euphorbiaceae.

The milkweed family (Asclepiadaceae) is extraordinary and contains some remarkable plants, such as the stapeliads and the genus *Ceropegia*. The stapeliads are succulents found in India, the Middle East and Africa. The principal genera grown are *Stapelia*, *Huernia*, *Caralluma* and *Duvalia*. The flowers, although often very beautiful, are remarkable because most species emit the unpleasant smell of dead meat; hence the popular name, 'carrion plants'. In many species the flowers also are the colour of dead meat; the purpose of this sham carrion is to attract the desert flies which pollinate the flowers. So perfect is the deception that flies invariably lay their eggs in the flowers, the resultant maggots perishing in two or three days when the flowers wither. The production of the long characteristic seed pods shows that the flies have served their purpose.

Most of the species of *Ceropegia* are climbing plants and have some very unusual flowers. Among the species grown are *Ceropegia fusca*, *C. woodii*, *C. robynsiana*, *C. haygarthii* and *C. sandersonii*.

Cacti from both North and South America are grown, some of the principal genera being *Cereus*, *Cleistocactus*, *Echinocereus*, *Ferocactus*, *Mammillaria*, *Opuntia*, *Oreocereus* and the epiphytic *Rhipsalis*.

One of the most interesting species is *Lophophora williamsii* a spineless cactus from Texas and Mexico. It is used by the



## THE GLASSHOUSES

Indians in their religious rites and is valued for its narcotic properties. The tops cut off and dried are known as mescal-buttons.

*Astrophytum myriostigma* is another spineless species, greyish in appearance and shaped like a clerical biretta. The pale-yellow flowers are produced from the crown of the plant. Looking like an old man with a head of white hair is *Oreocereus celsianus* from the Bolivian Andes. It is a columnar species growing three-to-four feet in height and might well be called the 'old man' of the Andes. *Espostoa lanata* is like a smaller form but in this case the hair is neatly brushed, cunningly concealing the sharp spines that are a trap to the unwary.

For a few months each year the Sturt pea (*Clianthus formosus*) from Australia makes a brilliant display—one of the most striking of the desert plants in the interior of Australia. It is difficult to grow and success here is achieved by sowing the seed *in situ* in the bed, thus avoiding the need of transplanting. The plant creeps over the ground, with the curiously shaped flowers hanging from short erect stalks. The colouring is an intense scarlet with a black boss in the centre of each flower. On occasions it has produced more than a hundred and twenty heads of flowers open at one time.

## THE FERN HOUSE

Constructed in 1955 from bequests made by Mary Rothney Orr and James Foster, the Fern House is laid out with a small stream running through it and with a narrow winding path which allows all parts to be seen. Large specimens of the whe (*Cyathea smithii*), their fronds protected from winds, attain perfection, and underneath are the more delicate or tender ferns which would not grow to perfection in the outdoor conditions of the New Zealand section. Probably the most magnificent fern in the Fern House is the heru heru or Prince of Wales feathers (*Leptopteris superba*). The beautiful translucent-green feathery fronds glistening with water make this one of the most beautiful ferns in the world. *Leptopteris hymeno-*

*phylloides*, although it does not have the same perfection, is another beautiful species, with finely-cut, almost transparent fronds.

Sheltered from the drying blast of the Canterbury nor'-westers, a number of species of filmy ferns are grown. Liberally clothing the trunks of some of the tree-ferns the common bristle fern (*Polyphelbium vernosum*) flaunts its bright green fronds. The rusty filmy-fern (*Mecodium sanguinolentum*) grows thickly on an old branch while several fern stumps are covered with the olive-green fronds of *M. ferrugineum*. The carpet fern (*M. demissum*) can be seen growing on the ground, and covering the rotted remains of an old branch is the kidney fern (*Cardiomanes reniforme*). This is another beautiful fern, with kidney-shaped fronds curling inwards to form a cup not unlike a translucent-green chalice.

Maidenhair ferns grow well and vary from the giant *Adiantum formosum* to the diminutive *A. diaphanum* var. *polymorphum* only an inch or two high. Other species grown are *A. diaphanum*, *A. cunninghamii* and *A. fulvum*.

Among the many others growing here are *Marattia salicina*, *Microsorium pustulatum* the fragrant fern, *Anarthropteris lanceolata*, *Ctenitis velutina*, *Pteris macilenta* and *Leptolepia novae-zealandiae*.

The Fern House is also an excellent habitat for some species of indigenous orchids (*Earina mucronata* and *E. autumnalis*) and the handsome parataniwha (*Elatostema rugosum*) which is found in damp shady bush in the North Island. It has handsome bronze-green foliage and will grow up to four feet in height.



## *The Gardens and The People*

CHRISTCHURCH is proud of its Botanic Gardens, only five minutes' walk from Cathedral Square, the centre of the city. During the summer businessmen take time from their offices to join their families for lunch in some quiet corner of the Gardens in peaceful and attractive surroundings. Mothers take their children to the spacious playground where parents can rest under the trees as they keep watchful eyes on the youngsters romping on the lawn or enjoying themselves in the paddling pool or on the several devices provided for their amusement.

The Gardens are a favourite venue for picnic parties and garden clubs. It is a familiar sight to see bus-loads of visitors from country districts arriving to spend the day in the grounds.

On Sunday afternoons throughout the summer, band concerts, subsidised by the City Council, are given on the Archery Lawn.

That the Botanic Gardens are an influence for good in the community is readily acknowledged. The tropical, sub-tropical, and hardy plant collections, features representing different phases of horticulture and the seasonal bedding displays all help to set a standard of horticulture in Christchurch. That Christchurch is garden-conscious is shown by the fact that in addition to the Canterbury Horticultural Society, there are within the metropolitan area six suburban horticultural societies, two beautifying associations, some fifty garden clubs and

at least ten specialist societies such as those interested in the rose, lily, chrysanthemum, daffodil, cacti and succulent, and native flora. These, and other similar societies, are always ready to assist the Gardens when the need arises.

Christchurch has a reputation of being the 'Garden City' of New Zealand. Strictly speaking, this is not true, but at least it is a city of gardens. This great love of gardens is largely due to the standard of horticulture maintained in the Botanic Gardens and in the parks and reserves of the city.

The Gardens have their purely educational value, too, and are the mecca of those making a study of horticulture, botany and related subjects.

Added to the attractions of the Gardens themselves are the Canterbury Museum, situated at the main entrance, and the McDougal Art Gallery within the grounds.

The popularity of the Gardens is shown by the many gifts, donations and bequests that have been made during the years. Among these are: the Cuninghame House, erected in 1926 at a cost of £10,000 from the bequest of Mr G. A. C. Cuninghame; the Townend House which was given by Mrs Townend in 1914 and replaced in 1955 with a larger structure; the fine Robert McDougal Art Gallery, the gift of Mr R. E. McDougal, erected in 1932 at a cost of £30,000; the Fern House built in 1955 from bequests of Messrs James Foster and M. R. Orr; the Evelyn Couzins Memorial, near the McDougal Art Gallery, erected in 1950 from a fund subscribed by the citizens of Christchurch; the children's paddling pool and rest house donated by the Christchurch Rotary Club; the sundial, now the central feature of the rose garden, erected in 1954 from a bequest of Mr Thomas Stevenson; the Dynes Memorial Gates at the western entrance to North Hagley Park, erected in 1958 from a bequest of Mrs Isabel Farrell; the A. M. E. Mickle Memorial Gates at the Armagh Street entrance to North Hagley Park, erected in 1961; the MacGibbon gates at the entrance from Riccarton Avenue to North Hagley Park and the Botanic Gardens, erected in 1961, the gift of Mr W. S. MacGibbon, a former member of the City Council; a



## THE GARDENS AND THE PEOPLE

comprehensive collection of cacti and succulents presented by Mr Montague Garrick. Many gifts of plants have been received from people in all walks of life and from local nurserymen, chief amongst whom must be mentioned the late Mr Robert Nairn who donated a number of the rarer trees and shrubs now growing in the Gardens.

## *Garden Features*

THE PINE MOUND: Visitors entering the Gardens through the Museum gate will notice at the far end of the Armstrong Lawn a fine group of cluster pine trees (*Pinus pinaster*) on what is now known as the Pine Mound. These pines are about ninety years old and are a distinctive feature of the landscape.

At the base of the mound and protected by the pines are flourishing specimens of half-hardy shrubs which flower consistently each season. Some of the most important of these are the giant *Protea cynaroides* from South Africa; *Erica canaliculata*, which is smothered with bloom throughout the winter; the Australian *Beaufortia sparsa*; *Leucospermum tottum*; *Leucadendron discolor*; *Fremontia californica* which is seldom without flower; and *Leonotus leonurus* (more popularly known as the lion's tail) which flowers during the late autumn. The South American pepper tree, *Schinus molle* and the little known species *S. terebinthifolius* also grow here, so also does *Aralia elata* 'Albo marginata'—a shrub with large handsome pinnate leaves margined with white.

THE HERBACEOUS BORDER: From the Pine Mound it is but a short step across the Archery Lawn to the Herbaceous Border which extends the full length of the northern side of the Archery Lawn and measures 522 feet long and 21 feet wide. Along its northern side, and flanking the wall of the Christ's College football ground, is a large shrub border dominated by Japanese cherries for most of its length. These overhang the pathway at the rear of the border and in October present a picture of delicate beauty.



## GARDEN FEATURES

In the Herbaceous Border itself a comprehensive collection of herbaceous perennials, except for the winter, gives a colourful and interesting display the year round. Throughout the seasons the overall colour scheme of the border varies: in the spring it is predominantly yellow, blue and pink; during the summer the colours become harder and more intense, as if to match the weather.

Approximately half-way along, the Herbaceous Border is divided by a paved area in which is situated an old sundial. Under the cherry trees at the rear is a stone seat from the old rose garden which was removed to its present position in 1936. The sundial was presented to the Gardens by William Rolleston, Superintendent of Canterbury, in 1873. It is by Wise of London and was originally mounted on a stone pedestal carved by Mr Brassington whose craftsmanship can also be seen in the old Provincial Chambers. Originally it was placed inside the Hereford Street entrance but was shifted to near where the Moorhouse statue now stands and later transferred to in front of the Curator's residence and finally to its present position.

**THE ROSE GARDEN:** As befits what many people regard as the queen of flowers, the Rose Garden is the dominant feature in the centre of the Gardens. The original rose garden was commenced in 1909 by Mr James Young and was much larger than the present one. It was rectangular in shape and extended out over most of the Central Lawn. This part of the Gardens is on very light land and about a thousand dray-loads of good soil were brought in to enrich it.

In 1936 the Rose Garden was re-formed to its present design and improved with two thousand cubic yards of soil. The circular design, with four pathways converging on the sundial in the centre, allows for one hundred and four beds in which approximately one hundred and twenty varieties of rose are grown. The Thomas Stevenson sundial which replaced a small circular pool, is made from local Halswell stone and has a top of polished black marble.

The border behind the clipped yew hedge surrounding the

Rose Garden is planted with flowering trees and shrubs which help to make this one of the most attractive parts of the Gardens. Here in spring is the soft pink of the Yoshino cherries followed by *Malus purpurea*, *M. purpurea* 'Eleyi', *M. halliana* and numerous varieties of lilacs. In the autumn *Acer cappadocicum* adds a touch of gold to the scene and during the winter the deliciously sweet perfume of the wintersweet (*Chimonanthus praecox*) is always present.

THE ROCK GARDEN: This garden, officially opened by Lord Galway in October 1939, is situated along the northern side of the Harper Lawn. It has an ideal position on the southward-facing slope, with a lily pond and the expanse of the Harper Lawn in the foreground and a background of rhododendrons and other shrubs. A comprehensive collection of rock garden plants is grown and even in the depths of winter something of interest will always be found.

Spring and early summer are the best times to see the Rock Garden for then the greatest number of different plants is in flower. First come the *Crocus* species such as *C. tommasinianus*, *C. pestalozzae* var. *coeruleus*, *C. etruscus* and *C. chrysanthus* and its varieties. *Iris histrioides* is also very early to flower and is followed by *I. reticulata* and other spring bulbs, such as *Narcissus cyclamineus*, *Erythronium* and *Chionodoxa*. *Bletilla striata* is an attractive hardy orchid from China which has flowers of amethyst-purple; it thrives in a moist pocket and flowers very well. The varieties of pasque flower (*Pulsatilla vulgaris*) make a wonderful display every spring while their fluffy seed heads are no less welcome later in the season. To deal with the spring-flowering plants at length is not possible; suffice it to say that such characteristic plants as *Primula*, *Saxifraga*, *Haberlea*, *Gentiana* and *Phlox* are all grown.

When the spring flowers are past the display is continued by *Dianthus*, *Campanula*, *Helianthemum*, *Horminum* and other summer-flowering plants. *Gentiana septemfida* flowers in late summer, and in the autumn there are *Cyclamen neapolitanum*, *Crocus speciosus*, *C. kotschyanus*, and various forms of *Colchicum*.



## GARDEN FEATURES

In the borders surrounding the Rock Garden are some interesting and attractive shrubs. A fine specimen of the Chinese witch-hazel (*Hamamelis mollis*) at the western end covers itself with bright golden, spidery flowers in winter and, although not mentioned in most books, fills the air with sweet perfume. Kingdon Ward's carmine cherry (*Prunus cerasoides* var. *rubea*), now a fine specimen more than twenty-five feet high, flowers well while a specimen of *Crinodendron patagua* with a trunk more than eighteen inches thick has had to be severely pruned to restrain it. Some other shrubs in this area which are worth noting are *Cytisus battandieri*, *Azara lanceolata*, *Gordonia axillaris* and *Grewia biloba* var. *parviflora*.

**AZALEA GARDEN:** In the western part of the Gardens between the bog garden and the playground is the area known as the Azalea Garden. Here in a semi woodland setting provided mainly by tall oak trees (*Quercus robur*) there are beds of mollis azaleas and magnolias. The azaleas are at their best during the middle of October when they make this one of the most spectacular parts of the Gardens.

Through the azalea beds are planted magnolias so that from August onwards the whole scene is most attractive. *Magnolia kobus* is the first to bloom, a single specimen being in the northern part of this area. The best display, however, is from *M. soulangeana* and its varieties which have been liberally planted through many of the beds. A fairly large specimen of *M. campbellii* has now reached the stage where it flowers profusely but unfortunately there are seasons when late frosts spoil its blossoms. After *M. soulangeana* both *M. wilsonii* and *M. sieboldii* carry the flowering season on till Christmas with the latter extending well into the new year. Two of the large-leaved species, *M. tripetala* and *M. macrophylla*, in this area are growing into handsome trees. *Magnolia macrophylla* is now about thirty-five feet high and produces its twelve-inch flowers in November and December. The leaves, which measure up to two feet in length, are often spoilt by the strong winds.

One of the most beautiful effects in the Azalea Garden is

from a bed of *Rhododendron augustinii* which flowers at the same time as the azaleas. The contrast of the blue-purple of *R. augustinii* with the vivid colours of the azaleas induces many a photographer to expend his spool of colour film.

PINETUM: Across the river from the Azalea Garden and extending from the West Bridge to Riccarton Avenue is the Pinetum. A start was made in establishing a collection of conifers in this part of the grounds before World War II and the trees planted then are now big enough to give the area considerable character. The southern portion of the Pinetum was, until 1961, largely used as a rubbish dump. This has now been cleared and the area sown down in grass which will allow the collection to be extended. A good representation of pines is grown, one of the most distinctive being the loblolly pine (*Pinus taeda*) from south-eastern United States. Its long, pale-green leaves stand out from the more sombre tones of the other pines. The Bhutan pine (*P. wallichiana*) is now about forty-five feet high and with its long drooping cones makes a handsome specimen. The cones are soft and very resinous and often reach a foot in length. Some of the other species of pine are *Pinus flexilis*, *P. strobus*, *P. coulteri*, *P. halepensis*, *P. attenuata* and *P. thunbergii*.

Although species like the common spruce (*Picea abies*) and the blue spruce (*P. pungens*) do not generally thrive in Christchurch, the Servian spruce (*P. omorika*) does very well. It comes from Yugoslavia and with its pendulous branchlets makes a very attractive tree.

The firs do well and a specimen of *Abies fargesii*, with its dark foliage and violet coloured cones, is particularly good. Other species of *Abies* represented are *A. magnifica*, *A. pinsapo*, *A. nordmanniana* and *A. koreana*. Among others represented in the Pinetum are *Widdringtonia schwarzii*, *Cunninghamia lanceolata*, *Taxodium distichum* and *Callitris tasmanica*.

DAFFODILS AND THE WOODLAND: The daffodil woodland covers an area of five acres and extends from the Woodland



## GARDEN FEATURES

bridge to the boundary of the Hospital grounds and from the river up to the Murray-Aynsley Lawn.

Towering oak trees give shelter from strong winds and diffuse the spring sunlight to give the daffodils an air of unearthly beauty. Planting of the daffodils was commenced in 1933 and today the flowers are numbered by hundreds of thousands. After they have finished flowering the grass is allowed to run to hay so that the daffodil foliage can die off. Even when the grass is long, lupins and red campion (*Melandrium rubrum*) add a touch of colour.

**ROSE SPECIES GARDEN:** On the southern side of the Murray-Aynsley Lawn is the Rose Species Garden, established in 1952. In it a large collection of *Rosa* species and primary hybrids, together with a few of the old fashioned roses, are grown. Although lacking the spectacular beauty of the garden roses, the species have considerable charm and in November and December when they are in full bloom the scent hangs heavily in the warm air. In the autumn, too, when each bush is covered with bright scarlet or orange fruits, the species are most attractive.

One of the most decorative is *Rosa moyesii* forma *rosea* from Western China. In the autumn its large bottle-shaped fruits make it stand out from all others. *Rosa horrida* is an appropriately named species which forms dense spiny bushes, while *R. xanthina* 'Canary Bird' has attractive bright yellow flowers. Among the old-fashioned roses there are several varieties of the Scottish rose (*R. spinosissima*) all of which have beautiful perfume, the Provence rose (*R. gallica* 'Officinalis'), and the moss rose.

**PRIMULA GARDEN:** At the western end of the Murray-Aynsley Lawn is a small stream which flows through from South Hagley Park and enters the Avon through the Woodland. In 1955 when the Murray-Aynsley Lawn was being sown a portion of the banks of this stream was landscaped to form the Primula Garden. Although still a long way from maturity it is already an attractive feature.

Various species of birch and one or two maples have been

planted as the main shade-trees; in addition there are specimens such as *Aristotelia macqui* a Chilean relative of the New Zealand mako mako, the Chilean fire bush (*Embothrium coccineum*) and *Cornus nuttallii*. A number of the smaller species of *Rhododendron* have been planted as an additional effect, as well as shrubs like *Mahonia lomariifolia*, *Callicarpa japonica*, *Daphne mezereum* and *Pieris taiwanensis*.

The various candelabra primulas, as well as many other Asiatic species, do remarkably well and some, such as *Primula japonica*, are so much at home that they seed themselves with great freedom. The primulas commence flowering in October when the main species in flower are *Primula japonica* and its varieties, *P. bulleyana*, *P. burmanica*, *P. pulverulenta* and *P. beesiana*. Species such as *P. viali* do very well although generally they are short-lived and have to be frequently renewed. Among the later-flowering species the best are *P. polyneura* a central Chinese species with broad, soft hairy leaves and large heads of purplish flowers, *P. sikkimensis*, and *P. alpicola*. This latter has some very attractive varieties such as *P. alpicola* var. *luna* with creamy flowers and *P. alpicola* var. *violacea* which has violet-purple flowers heavily powdered with white farina.

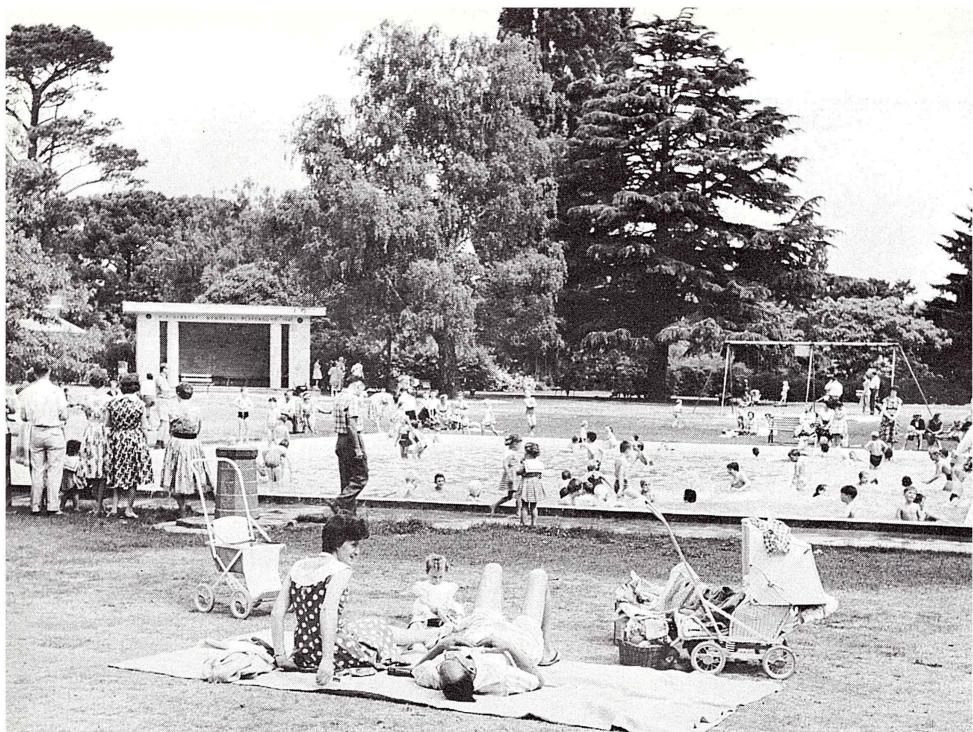
These are some of the main features of the Gardens; there are others, such as the camellia collection, the paeony border and the Australian section, which all help to make every corner of the grounds interesting and different.





I count only the sunny hours.





A visit to the spacious playground is always a popular family outing.

Schoolchildren learn botany in ideal surroundings.







Band concerts are given on the Archery Lawn during the summer.





The first recorded tree planted in the Gardens: a magnificent specimen of the common oak (*Quercus robur*).



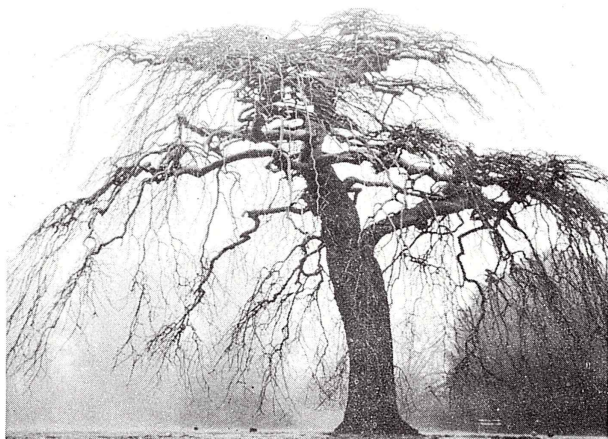


One of the finest trees in the Gardens: this madrona (*Arbutus menziesii*) is over seventy-six feet high.





This large cedar of Lebanon (*Cedrus libani*) was planted before 1880.



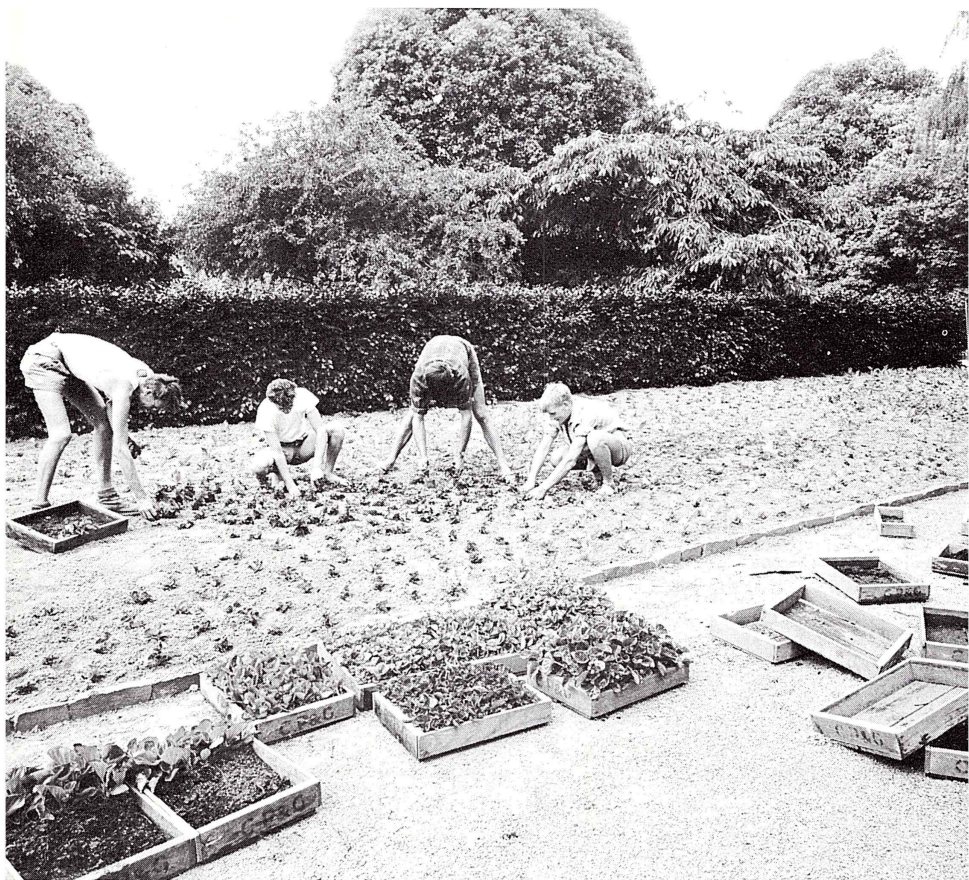
The Camperdown elm (*Ulmus glabra* 'Camperdownii') on the Central Lawn in mid-winter.





A well-grown specimen of the famous dawn redwood (*Metasequoia glyptostroboides*). On the left is a western red cedar (*Thuja plicata*).





Some thirty-eight beds and borders are planted every season. In the summer display alone some thirty thousand plants are used.





Seedlings are pricked out in preparation for the next season's bedding scheme.



Roses are sprayed regularly to prevent attacks of mildew, red mite and other garden pests.





Modern machines help to cope with the problem of autumn leaves.

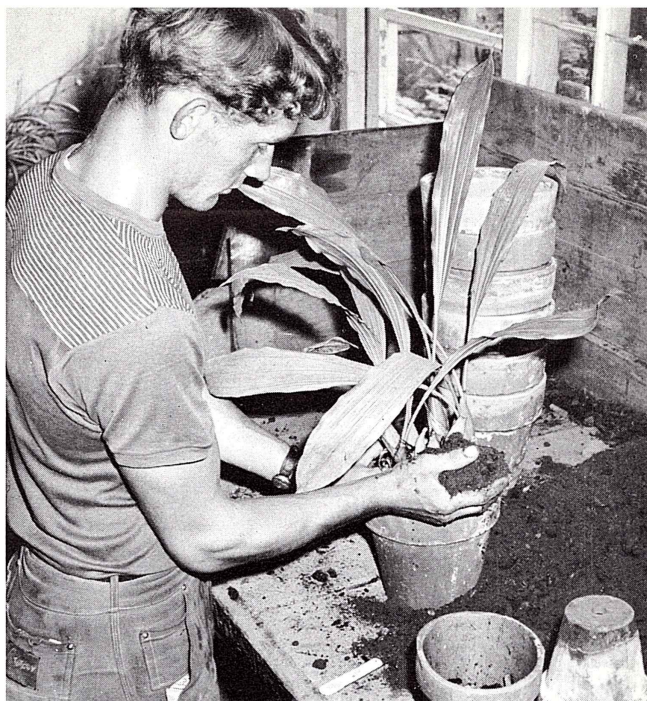




As trees grow older surgery is sometimes necessary to keep them in good health.



An apprentice repots an orchid, one of the many jobs to be done periodically in the glasshouses.



Strict attention is paid to glasshouse hygiene to prevent pests and diseases.

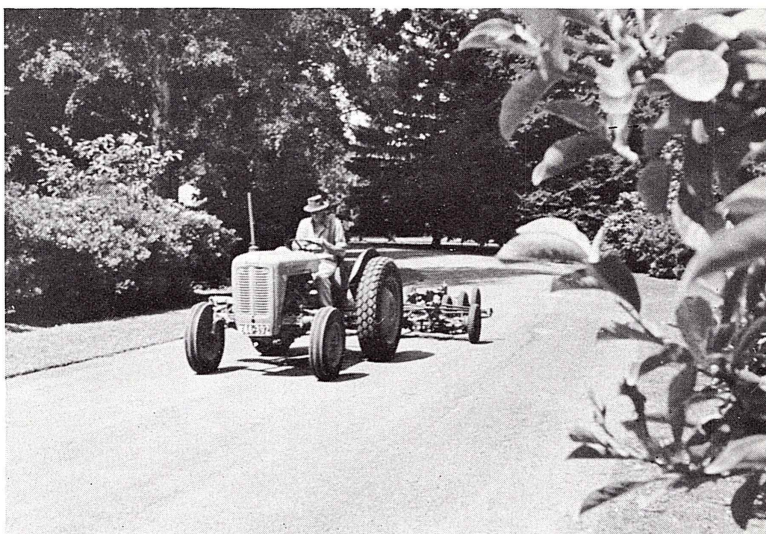






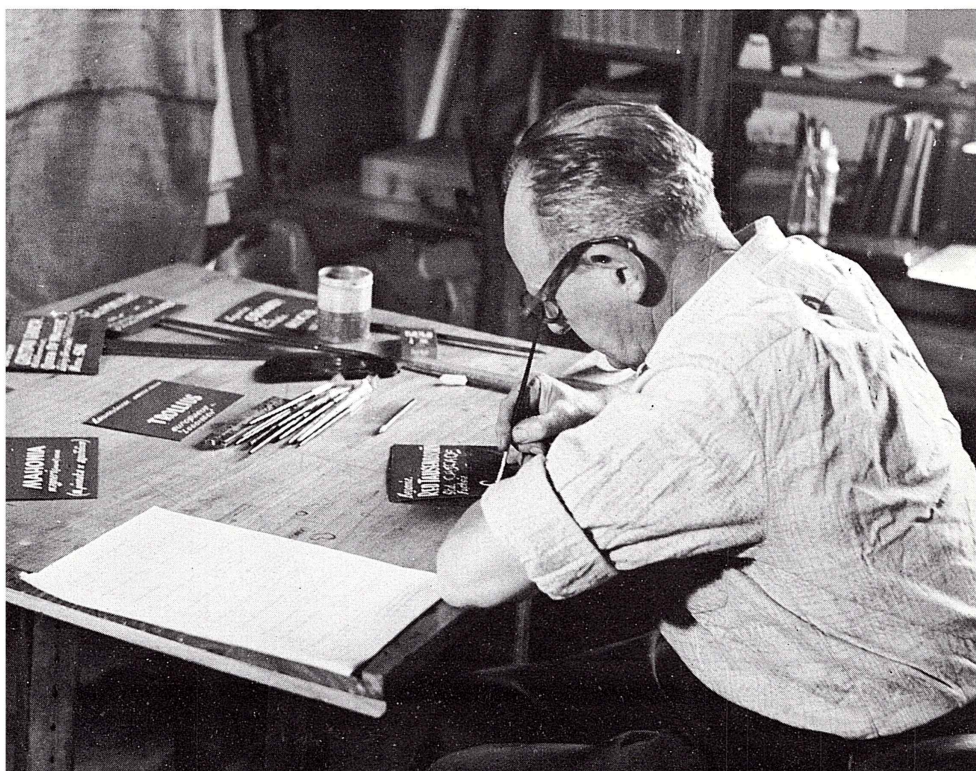
Bushes are pruned and the ground dug over in the Rose Species Garden.



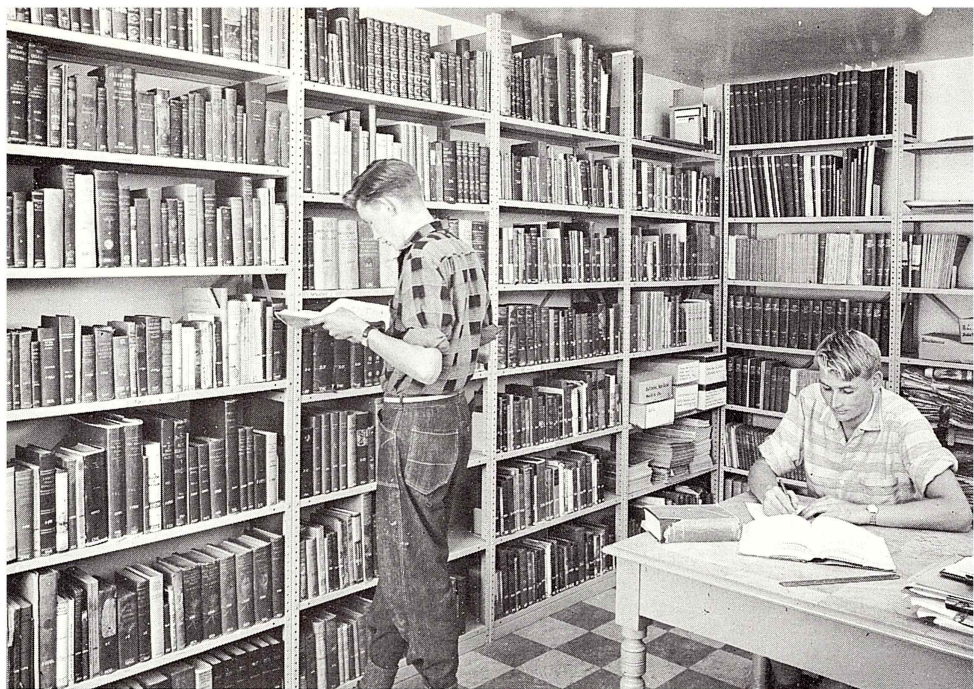


A tractor-drawn mower on its endless summer rounds.

The labelling of plants throughout the Gardens is a full-time job.







Horticultural students make good use of the library.

Some of the men responsible for the administration of the Gardens: (from left) H. G. Gilpin, Director; M. J. Barnett, a former Director; G. G. Henderson, Assistant-Director; L. J. Metcalf, Assistant-Curator.





## CHAPTER TWELVE

# *Behind the Scenes*

THE authority for the control of Hagley Park and the Botanic Gardens is the Christchurch City Council which administers the area under the Public Reserves and Domains Act, 1953. The committee directly responsible is the Parks and Gardens Committee consisting of a chairman and eight councillors appointed by the City Council. Committee meetings, at which the Director is present, are held every month to determine general policy and receive correspondence, reports, and recommendations by the Director. These matters are then presented to the City Council either as information or for further consideration and decision.

Annual expenditure on the Botanic Gardens and Hagley Park is approximately £36,000. A further £3,000 is available from rents and the sale of such items as firewood and hay. The main income is provided from the general consolidated rate of the city, and is not contributed to by any other local authority.

The chief officer is the Director who is responsible to the Council for the management not only of Hagley Park and the Botanic Gardens but also of all parks, recreation grounds, plantations, reserves and cemeteries, amounting to some eight thousand acres, under the control of the Christchurch City Council.

Next in rank is the Assistant Director. After him comes the Assistant Curator, who is concerned only with the Botanic Gardens and Hagley Park, and has a staff of from thirty-five to forty; a general foreman, a senior propagator, fifteen gardeners (including five women), three labourers, three truck,

tractor and motor-mower drivers, a signwriter and some fifteen horticultural trainees.

Although the Botanic Gardens are a separate entity and, from the administrative point of view, are treated as such, they are an integral part of the Parks and Reserves Department. All clerical work is done by the Department's office staff in the Council Chambers where the Director has his headquarters. The Department's officers, such as the Landscape Architect, are also called in when necessary.

Each year, to provide for the seasonal floral and bedding schemes, current plant and seed catalogues are studied, the selected seeds, bulbs and plants suitable for the site are ordered, and planting schemes are prepared. This involves a decision on the kinds of plants required, what colour harmonies and contrasts are to be used, and the estimated number of each that will be required. These lists are handed to the head propagator who sees that the necessary plants are raised and ready for planting at the appropriate time. He is also responsible for the large number of pot plants required for the displays in the large glasshouses and show houses.

Plants new to horticulture are continually being discovered or are being raised by breeders and hybridists and it is one of the obligations of the Botanic Gardens to introduce such plants to the public. Catalogues and horticultural periodicals are closely examined and every effort is made to obtain and cultivate subjects considered suitable for local conditions. Many new plants are raised from seed both in the Gardens and at the Municipal Nursery. Each year, by the system of exchange, seeds of various plants are received from some one hundred and seventy botanic gardens, universities and botanical institutions in some sixty-seven different countries. Seeds of approximately four hundred species and varieties are collected, prepared, packeted and listed in a catalogue which is sent to all the centres on the exchange list. By this system of reciprocal exchange many new and worth-while plants of botanical and horticultural interest are introduced.



## BEHIND THE SCENES

To keep the staff conversant with new developments affecting the practice and principles of horticulture, current literature on such subjects is studied and, when necessary, trials are carried out.

For many years the Botanic Gardens has been recognized as a training centre for young people wishing to take up horticulture as a career. Such students are articulated to the City Council under the New Zealand Horticultural and Gardening Industry Apprenticeship Order and, as apprentices, prepare for the National Diploma of Horticulture examinations conducted annually by the Royal New Zealand Institute of Horticulture. Applications for apprenticeship are received steadily and no difficulty has been experienced in obtaining the maximum number which the Department can handle.

Girls are also engaged as trainees and, although they are not articulated as are the boys, they receive a general training in horticulture and may, if they wish, sit the examinations.

Many men and some women now holding responsible positions in horticulture in New Zealand received their initial training at the Botanic Gardens or with the Department.

The Botanic Gardens has a well-equipped and extensive library of books and publications on horticulture and related subjects. Many of these books were bequeathed by the former curators, J. B. and J. F. Armstrong, James Young and B. P. Mansfield, and some have been donated by citizens. The library is of great importance to the staff in the identification of plants, including material submitted by the public.

## CHAPTER THIRTEEN

# *Notable Trees*

THE great glory of the Gardens is the magnificent trees from all parts of the world that are distributed throughout the grounds and in Hagley Park. Only a few of special distinction can be mentioned here. Others of equal merit have already been referred to.

The dimension of the trunks of the trees listed are all taken at breast-high measurement.

### THE OAKS

THE COMMON OAK (*Quercus robur*): The patriarch of the Gardens and the first recorded tree planted there is the common oak which was planted in 1863 to commemorate the marriage of Prince Albert (Edward VII) to Princess Alexandra of Denmark.

The tree is now a well-grown specimen with a sturdy trunk 4ft 3ins in diameter, 110ft high and with a branch spread of over 100ft.

PRINCE ALFRED'S OAK: Although there are many fine oak trees through the Gardens and Hagley Park, one of historic importance is the Prince Alfred's oak in the centre of the Armstrong Lawn, planted by the Duke of Edinburgh on his visit to Christchurch in 1869. His Royal Highness especially requested that this tree should never be touched with knife or axe, and, although it badly needed attention, Mr Armstrong would not allow it to be touched during his term of office. Since then it has been pruned where needed, and has been much improved.



## NOTABLE TREES

THE HOLM OAK (*Quercus ilex*): The tree of this evergreen from the Mediterranean region, situated on the Archery Lawn, is a notable specimen, having attained a height of 72ft, a trunk girth of 10ft and a branch spread of 70ft. It withstands dry conditions very well, is much used for shelter in Britain, and can be clipped to a regular shape and used as a hedge.

THE CORK OAK (*Quercus suber*): A specimen of this tree, on the Archery Lawn near the Holm oak and another evergreen species, *Q. incana*, shows a corky character of the bark. It has a height of 67ft., a trunk 2ft 8ins in diameter and a branch spread of 59ft.

DIAMOND-LEAVED OAK (*Quercus obtusa*. syn, *Q. rhombica*): This semi-evergreen oak from the south-eastern states of the U.S.A. is a wide-spreading tree with a broad symmetrical head. Although severely damaged by the snowstorm of 1945, it recovered remarkably well. In the spring the young foliage is brightly tinted with red, and is seen at its best with the sun shining through it.

## THE CONIFERS

THE MONTEREY PINE (*Pinus radiata*): Of all the exotic trees introduced to New Zealand none has been so extensively planted and in such large numbers as this pine from Monterey, California. It is not known when it was first introduced, but records show that seedlings were raised and planted in Canterbury in 1868. The specimen near the tea kiosk must rank as one of the largest in the country. It has reached a height of 135ft and has a well-balanced canopy of branches and a trunk over 18ft in circumference.

THE CLUSTER PINE (*Pinus pinaster*): One of the most picturesque features of the Gardens is the group of cluster pines growing on what is known as the Pine Mound between the Armstrong and Archery lawns. This mound is one of the original sandhills that existed when the Gardens were formed. In an account of the trees and shrubs growing in Wilson's Nursery, written in 1863, *Pinus pinaster* is listed with the

remark that 'it is a tree which will yet clothe with luxuriant green the slopes and summits of our dry and ever-shifting sandhills'. *Pinus radiata* with its much more rapid growth has since proved more suitable for this purpose. The tallest trees on the mound have now reached a height of 106ft.

THE STONE PINE (*Pinus pinea*): The group of stone pines on another of the original sand mounds west of the rose garden is an imposing feature of the landscape. The umbrella-shaped head of branches and the deeply fissured dark-brown bark give the trees a distinct and ornamental appearance. The larger trees now have a height of 50ft. Both this and the cluster pine are natives of the Mediterranean region and must have been planted during the 1860s.

MEXICAN WEEPING PINE (*Pinus patula*): Of all the pines in the Gardens none excel this Mexican pine in grace and beauty. The specimen immediately north of the New Zealand section, with its regular branching habit forming a broad dome-like shape and well-clothed with soft green silk-like pendulous needles, never fails to attract attention at all seasons of the year. As an ornamental pine it has few equals.

TORREY or SOLEDAD PINE (*Pinus torreyana*): This five-needed pine, a native of San Rosa Island off the west coast of California, has made remarkable growth. The largest specimen, situated on the Paulownia Lawn, has reached a height of 120ft with an upright trunk of 14ft 6in in circumference. The seed of this pine was introduced to Canterbury by T. H. Potts in 1870. The trunks of this tree have little taper and when milled yield a timber of good quality. It may yet prove a useful timber tree for some parts of New Zealand.

THE MONTEREY CYPRESS (*Cupressus macrocarpa*): This cypress from Monterey, California, more popularly known throughout New Zealand as the 'macrocarpa' was probably introduced about the same time as *Pinus radiata*. The first recorded planting was in 1864 by J. B. A. Acland at Mount Peel station, South Canterbury. Two specimens in the Gardens, one near the Cuninghame House and the other on a low sandy mound between the bog garden and the New Zealand section, are



## NOTABLE TREES

unique. They have wide spreading branches extending outwards from the trunk for a distance of 87ft. The deeply-fluted trunks have a diameter of 9ft. With the exception of *Pinus radiata*, *Cupressus macrocarpa* is the most common exotic tree throughout the country. While there are some excellent specimens of it in other parts of the Dominion, for picturesque beauty the two trees in the Gardens are outstanding.

HIMALAYAN OR BHUTAN CYPRESS (*Cupressus torulosa*): With its upright branching habit and its symmetrical pyramidal form, *Cupressus torulosa* is a beautiful tree. The specimen on the Archery Lawn, which has reached a height of 62ft, deserves consideration as one of the notable trees of the Gardens.

THE WESTFELTEN YEW (*Taxus baccata* 'Dovastonii'): There are many yews in the Gardens but for size and beauty none surpasses the specimen 'Dovastonii' growing in the Central Lawn. It has a height of 44ft, a trunk 3ft 9ins in diameter and a branch spread of 52ft.

THE MONKEY PUZZLE (*Araucaria araucana*): Some fifty years ago the Money Puzzle, a native tree of Chile, was common in private and public gardens throughout New Zealand. Today it is seldom seen. There are, however, three notable trees still flourishing in the Gardens. The largest, planted in 1870 by Sir George Bowden, is in the Armstrong Lawn near the Hereford Street entrance. It has a height of 69ft and a trunk diameter of 2ft 8ins.

THE DAWN REDWOOD (*Metasequoia glyptostroboides*): Growing in the lawn near the Townend House, the specimen (now 35ft high with a trunk 7ins in diameter) was one of the first of these interesting trees to be planted in New Zealand. It was planted in 1949 from a six-inch pot.

THE KAURI (*Agathis australis*): Although peculiar to the warmer parts of Northland, the kauri has proved hardy in many parts of the South Island. The specimen on the Archery Lawn was planted in 1920 by the Prince of Wales (now the Duke of Windsor). It has reached a height of 42ft with a trunk diameter of 12ins.

## A GARDEN CENTURY

### EVERGREEN TREES

*Eucalyptus delegatensis* (syn. *E. gigantea*): There are several species of *Eucalypti* in the Gardens but the largest is *E. delegatensis*, more popularly known as *E. gigantea*. It is a noble specimen over 100ft high and with a trunk 6ft 8ins in diameter.

THE MADRONA (*Arbutus menziesii*): 'Where, oh! where, shall he begin/Who would paint thee, Harlequin?/With thy waxen burnished leaf,/With thy branches' red relief;/With thy poly-tinted fruit.'

Thus wrote Bret Harte in praise of the Madrona, a native evergreen of California and southern Oregon. It is closely allied to the well-known strawberry-tree, *Arbutus unedo*. The large specimen growing near the royal oak is at all seasons of the year one of the grandest and most beautiful trees to be seen. It has a height of 76ft, a trunk 19ft in circumference and a branch spread of 61ft. The leaves are of a deep glossy green colour, the smooth bark of the limbs cinnamon coloured, and in the late spring the branches carry large panicles of waxy white flowers followed in the autumn by masses of bright red fruits.

THE MAYTEN (*Maytenus boaria*): This graceful evergreen tree from Chile is usually listed as seldom exceeding a height of 30ft. The large specimen on the Archery Lawn was badly damaged by the 1945 snowstorm but recovered remarkably well and now has a height of 72ft. There is another handsome specimen on the Armstrong Lawn. Although by no means common in other parts of New Zealand, the Mayten is a familiar tree in many Christchurch gardens.

THE CALIFORNIAN LAUREL (*Umbellularia californica*): This is by no means a common tree in New Zealand. The specimen in the border south of the Archery Lawn must be one of the largest of its kind in the Dominion. It has a height of 72ft with a trunk diameter of 3ft 2ins. The deep-green leathery leaves give off a pungent aromatic odour when crushed. There is a common belief that if the odour is inhaled it will cause a violent headache; those who have tried vouch for its accuracy.



## NOTABLE TREES

### DECIDUOUS TREES

Of the many oaks, elms, beeches, limes, birches, maples and other deciduous trees in the Gardens it is difficult to select the most notable; the following are but a few:

**THE TULIP TREE (*Liriodendron tulipifera*):** A native of the eastern states of North America, the Tulip Tree once established grows rapidly and soon forms an attractive shade tree. The somewhat tulip-shaped flowers are yellowish-green in colour with darker yellow and deep orange on the tips of the petals. In autumn the large truncated leaves turn a clear yellow. The large specimen near the Art Gallery flowers freely each year. It has grown to a height of 75ft and has a trunk diameter of 2ft 8in.

**THE NORWAY MAPLE (*Acer platanoides*):** There are no less than thirty-nine species and varieties of maples in the Gardens, and one of the most beautiful is *Acer platanoides* 'Waldersseei' growing on the lawn near the iris pool. So densely spotted are the leaves with white that in spring and early summer they appear almost transparent. It is one of the prettiest trees in the grounds and has attained a height of 20ft with a trunk 12ins in diameter.

***Zelkova serrata*:** Not far from the Norway maple is a shapely tree of *Zelkova serrata* which has a height of 18ft and a trunk diameter of 1ft 11ins. Although perfectly hardy, few of these trees, which are allied to the elms, have been established in New Zealand. As an ornamental deciduous tree it and other species of the genus are deserving of greater attention.

**THE CUT-LEAVED BEECH (*Fagus sylvatica* 'Laciniata'):** One of the best ornamental deciduous trees is the cut-leaved beech growing near the main walk in the Armstrong Lawn. This shapely tree has a height of 55ft and a trunk diameter of 2ft 2ins.

**THE CUCUMBER TREE (*Magnolia acuminata*):** As a flowering tree this magnolia, a native of eastern North America, can be considered the least conspicuous of all the beautiful species of the genus and yet for stature it is the noblest. The upright

## A GARDEN CENTURY

specimen growing in the rose species garden has a height of 59ft and a trunk diameter of 2ft 8ins. The popular name 'cucumber tree' is derived from the young unripened seed-pods which have the colour and form of a young cucumber fruit.

THE YOSHINO CHERRY (*Prunus yedoensis*): Although there are many species and varieties of cherry in the Gardens, the Yoshino cherry of Japan takes pride of place during the first month of spring. Winter is hardly over when this floriferous and beautiful cherry bursts into bloom with its masses of single white flowers tinted with pink. There are many fine specimens throughout the Gardens. The extensive row along Riccarton Avenue is an entrancing sight when the trees crowded with blossoms are seen against the larger, more sombre, leafless trees in the background.

Besides those already referred to there are several historic and commemorative trees in the Gardens which were planted by members of the Royal Family, Governor-Generals, Presidents of Rotary International and other distinguished people.



## CHAPTER FOURTEEN

# *A Garden Tour*

THE Botanic Gardens are situated within easy walking distance of the heart of the city. For most people the Museum gate at the end of Worcester Street is the obvious entrance.

Inside there is the broad expanse of the Armstrong Lawn with its fine specimen trees and bordering flower-beds while on the right of the walk is the Museum. Straight ahead past the western end of the Armstrong Lawn is the Evelyn Couzins Memorial with the Pine Mound on the left and, a little distance to the right, the McDougal Art Gallery. From this point there is a fine view of the great sweep of the Archery Lawn. Instead of crossing the lawn take the right-hand path and, on rejoining the main walk, turn left and continue round to the herbaceous border passing on the way a specimen of the anchor plant (*Colletia paradoxa*), so named because of the shape of its formidable spines. At the eastern end of the herbaceous border and by the lych-gate leading into Christ's College is the common olive (*Olea europea*) which fruits regularly.

Keeping the herbaceous border on the right, follow the walk to the western end of the Archery Lawn where are situated the maple borders in which are many varieties and forms of the Japanese maple (*Acer palmatum*). These maples are particularly attractive in the spring and again in the autumn. Just before reaching the western end of the herbaceous border the epaulette tree (*Pterostyrax hispida*) should be noted. At the end of the border there is the choice of three pathways. The middle one continues more-or-less straight on to the rose garden. However, if it is spring, the path to the right is to be preferred,

as it leads through the camellia collection then in full bloom. On rejoining the Central Walk, by the office, continue on and enter the rose garden from the northern entrance. If, instead of turning right, the middle walk is taken, a large border of annuals is passed on the right and then, after noting the Australian section on the right, cross the intersecting path and continue towards the rose garden.

The Australian section is marked by a row of tall Eucalyptus trees of which *E. cordata* and the manna gum (*E. viminalis*) are the most notable. In the border a representative collection of Australian plants is grown and here may be seen the grevilleas (*Grevillea victoriae*, *G. hookeri*, *G. rosmarinifolia*, and *G. miqueliana*), *Correa rubra*, *C. backhousiana*, and Cootamandra wattle (*Acacia baileyana*), *Acacia leprosa*, *Calistemon spp.*, *Podocarpus elata* and other characteristically Australian plants.

After viewing the rose garden take the northern pathway from the sundial and continue to the main entrance of the Cuninghams House. After inspecting the tropical plants leave by the rear door and enter the Townend House and the Garrick Cactus and Succulent House, then leave by the side door of the Townend House and enter the Fern House opposite.

From the Fern House turn left and then left again to join the main walk which leads to the tea kiosk. Some fine views of the river and North Hagley Park are obtained on the way. From the kiosk follow the main walk, keeping the playground on the right. Note the beds of *Forsythia*, *Philadelphus* and *Kolkwitzia*, and at the junction of the Main and Central Walks, the row of *Paulownia* trees on the left. Disregard the temptation to wander across to the iris pond on the left and continue to the azalea garden which is noted for the display of magnolias and mollis azaleas in the springtime. Turn left and walk among the beds of azaleas, keeping a general left-hand direction until one comes out to the small path between the iris pond and the bog garden.

Enter the bog garden and take the left-hand pathway round the lake. In spring and summer the various waterside plants and the waterlilies are in bloom, and in autumn the foliage of



## A GARDEN TOUR

the *Liquidambar*, *Populus grandidentata*, *Berberis* and *Acer* are most colourful. Beautiful reflections can also be seen at this time of the year. About two-thirds of the way round the lake make a short detour through the New Zealand section, taking the right-hand path through the 'bush' and, on coming out at the lake, follow the right-hand path round its margin until one reaches a large Monterey cypress which is girdled with a seat.

From the Monterey cypress keep to the path round the west side of the lake. On the right is the Western Lawn, separated from the path by the *Olearia* border, while a little further on a group of *Nothofagus* trees will be seen on the left. The path continues straight on to the Cockayne Memorial Garden where many of the more ornamental New Zealand plants are grown. At the memorial stone walk down into the alpine garden, and after wandering round the small pathways leave by the right-hand exit on to Beswick's Walk.

In autumn Beswick's Walk is especially attractive when the linden trees are in full colour. Cross Beswick's Walk and after noting the border of ornamental conifers on the right, enter the rock garden. There is much to be seen in this section and a detour round some of the smaller pathways will prove full of interest. After walking through the rock garden, keep the Harper Lawn and the erica border on the right and, at the eastern end, cross the lawn diagonally to the river and the Woodland Bridge. Note the Cherry Mound to the left and the fine specimen of the Madrona, *Arbutus menziesii*.

In September most people will wish to cross the bridge and see the daffodils, but the Woodland is worth visiting at any period of the year. By crossing the bridge and turning left the primula garden, the Murray-Aynsley Lawn and the rose species garden can be seen, all within short walking distance. In this part beautiful views of the river are obtained.

After returning from the Woodland and recrossing the bridge, turn right and follow the River Walk downstream. A short distance from the bridge is the Albert Edward oak, on the left, and then the rhododendron border. Along this stretch of the river some fine views of the Woodland can be enjoyed.

## A GARDEN CENTURY

After rounding a bend the grounds of the Public Hospital, which adjoin the Woodland, come into view. On the left is the holly border and then a diverging path which leads out to the Hereford Street entrance. Continue along the River Walk past a large bed of mollis azaleas and magnolias on the left and a collection of ornamental conifers on the right. In the collection is a shapely specimen of the kawaka (*Libocedrus plumosa*) and a rare Chinese conifer, *Fokienia hodginsii*.

At the Director's house turn left and follow the walk along the eastern side of the Armstrong Lawn back to the Museum gate. Near the Director's house is a specimen of *Podocarpus andinus* while a little further along, on the left, several specimens of the scarlet oak (*Quercus coccinea*) are conspicuous in the autumn.

The minimum time for such a tour is about two hours. Although it has been planned to show all the main features of the Gardens, there are many byways and other walks which would take many more hours to explore thoroughly.



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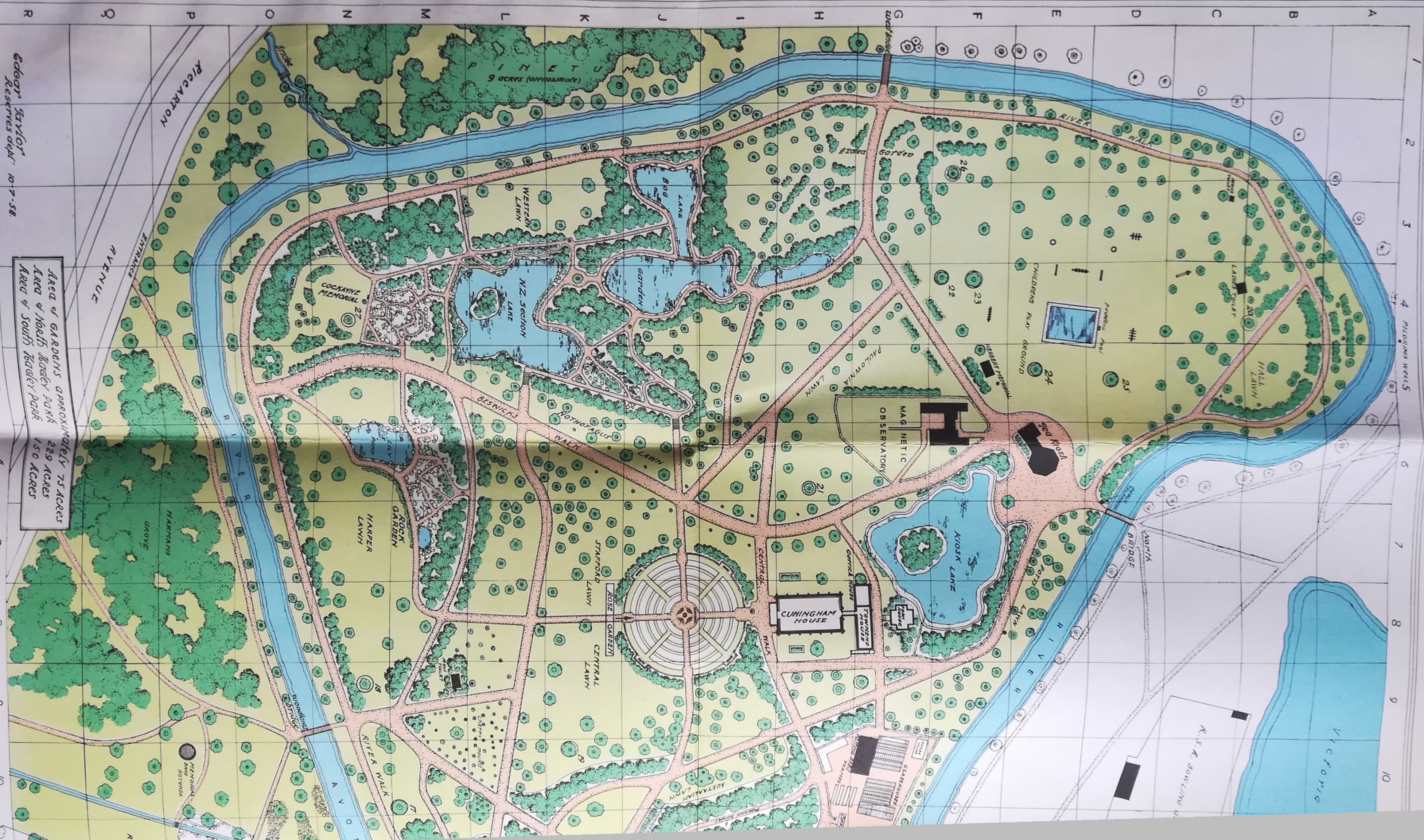
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## HISTORIC TREES

| <i>Map No.</i> | <i>Tree</i>                                     | <i>Planted by or for</i>  |
|----------------|---|---|
| 1              | <i>Quercus robur</i>                            | To commemorate the marriage of George V, 1893                                     |
| 2              | <i>Araucaria araucana</i>                       | Sir George Bowden, 1870   |
| 3              | <i>Cedrus deodara</i>                           | J. F. Armstrong, 1880   |
| 4              | <i>Malus 'Lemoinei'</i>                         | Lady Norrie, 1953   |
| 5              | <i>Acer platanoides 'Goldsworth Purple'</i>     | Queen Elizabeth II, 1954  |
| 6              | <i>Malus 'Oporto'</i>                           | Sir Willoughby Norrie, 1953   |
| 7              | <i>Liquidambar styraciflua</i>                  | To commemorate the Coronation of Queen Elizabeth II, 1953                         |
| 8              | <i>Betula papyrifera</i>                        | Sir Cyril Newall, 1946  |
| 9              | <i>Ginkgo biloba</i>                            | Lord Galway, 1938   |
| 10             | <i>Quercus robur</i>                            | Duke of Edinburgh, 1869   |
| 11             | <i>Sequoiadendron gigantea</i>                  | Duke of Edinburgh, 1869   |
| 12             | <i>Cedrus libani</i>                            | Marchioness of Normandy, before 1880  |
| 13             | <i>Fagus sylvatica</i> var. <i>atropunicea</i>  | Lord Jellicoe   |
| 14             | <i>Fagus sylvatica</i>                          | Duke of York, 1927  |
| 15             | <i>Agathis australis</i>                        | Prince of Wales, 1920   |
| 16             | <i>Acer platanoides 'Goldsworth Purple'</i>     | Queen Elizabeth II, 1954  |
| 17             | <i>Quercus robur</i>                            | To commemorate the marriage of Prince Albert Edward, 1863                         |
| 18             | <i>Quercus borealis</i> var. <i>maxima</i>      | To commemorate the Coronation of George V, 1911                                   |
| 19             | <i>Quercus robur</i>                            | To commemorate the Coronation of Edward VII, 1902                                 |
| 20             | <i>Tilia americana</i> forma <i>macrophylla</i> | J. A. Abey, President Rotary International, 1961                                  |
| 21             | <i>Pinus canariensis</i>                        | Lord Bledisloe, 1935  |
| 22             | <i>Metasequoia glyptostroboides</i>             | H. J. Brunner, President Rotary International, 1952                               |
| 23             | <i>Ulmus campestris 'Van Houttei'</i>           | A. Z. Baker, President Rotary International, 1955                                 |
| 24             | <i>Quercus coccinea</i>                         | S. K. Guernsey, President Rotary International, 1947                              |
| 25             | <i>Cedrus deodara</i>                           | S. Pascall, President Rotary International, 1932                                  |
| 26             | <i>Carpinus</i> sp.                             | C. A. Randall, President Rotary International, 1958                               |
| 27             | <i>Phyllocladus glaucus</i>                     | Prof. C. Skottsberg, to commemorate the opening of Cockayne Memorial Garden, 1938 |





Edgar Taylor  
Reserves dep't. 10-7-58.

|                               |           |
|-------------------------------|-----------|
| Area of GARDENS approximately | 75 ACRES  |
| Area of North Bradley Park    | 229 ACRES |
| Area of South Bradley Park    | 150 ACRES |



# BOTANIC GARDENS

CHRISTCHURCH  
NEW ZEALAND  
KEY PLAN

Canterbury University  
Tennis Courts

Canterbury Rugby Union  
Memorial Pavilion

P A R K

N O R T H

H A G L E Y

A V O N

C H R I S T S

C O L L E G E

CLEMATIS  
GARDEN

NEBACQUO  
BORDER

ARCHERY  
LAWN

POOL AND  
FOUNTAIN

PINE  
MOUND

ART  
GALLERY

MUSEUM

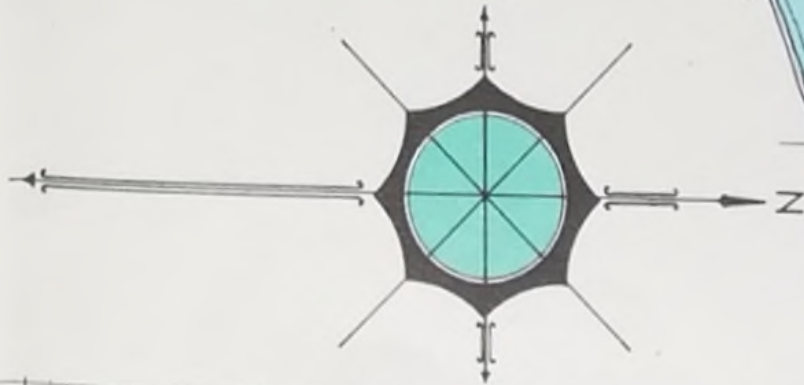
ARMSTRONG  
LAWN

ROLLESTON

AVENUE

BRIDGE

Horse  
Ridings



12

13

14

15

16

17

18

19

20

21

Lake  
ALBERT

MURRAY-  
AVILEY LAWN

DAFODILS

WOODLAND

DAFODILS

DAFODILS

CHRISTCHURCH  
PUBLIC HOSPITAL

DIRECTOR'S  
RESIDENCE

ENTRANCE

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# A GARDEN CENTURY

SPRING BY THE RIVER AVON, CHRISTCHURCH, NEW ZEALAND

